Draft
Environmental Impact Report

Single-Use Carryout Bag Ordinance

City of Los Angeles
Department of Public Works
Bureau of Sanitation

January 2013

PARSONS BRINCKERHOFF

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Environmental Impact Report

Single-Use Carryout Bag Ordinance

City of Los Angeles

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January 2013

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Summary

The Project

In California, nearly 20 billion (20,000,000,000) single-use plastic carryout bags are used annually, and most end up as litter or in landfills[1]. Each year, billions of these single-use plastic bags are consumed in the City of Los Angeles (City) and end up in the litter stream, impacting Los Angeles communities and the environment. The City spends millions of dollars each year on prevention, cleanup, and other activities to reduce litter.

To combat plastic bags litter, the City of Los Angeles is proposing to adopt and implement an ordinance to regulate the use of single-use plastic carryout bags and promote the use of reusable bags within the City. The proposed ordinance would:

(1) Ban plastic single-use carryout bags at the point of sale in retail stores and require retailers to provide reusable bags to consumers for sale or at no charge, and

(2) Mandate a charge on recycled content paper single-use carryout bags at the point of sale in retail stores.

A grace period of six months for large retailers and one year for small retailers would be provided to allow retailers to phase out their stocks of plastic carryout bags. Upon completion of the grace period, retailers would be required to charge $0.10 per paper bag, which would be retained by the retailer. During the grace period, the retailers could continue to provide plastic carryout bags and would not be required to provide paper carryout bags at no cost to consumers for the purpose of carrying out their purchases.

The grace period would include a public education component conducted by the City's Bureau of Sanitation (BOS or Bureau). The Bureau has already been conducting a public education program for several years. The program activities include disseminating information to the public and public outreach, providing information to the City's Neighborhood Councils, working with retail stores throughout Los Angeles to install recycling bins for plastic and paper bags and providing information to the customers, and participating in many major events promoting the use of reusable bags throughout the City to help raise awareness about the benefits of using reusable bags. Since 2005, the Bureau has purchased and distributed over 250,000 reusable bags to encourage shoppers to switch from using single-use carryout bags. The Bureau will continue these activities throughout the grace period, including conducting workshops with the Neighborhood Councils about the project.

The proposed ordinance would apply to retail stores in the City, including large retailers (full-line self-serve retail stores with two million dollars or more in gross annual sales, and stores of at least 10,000 square feet of retail space that generate sales or use tax), and small retailers (supermarkets, grocery stores, drug stores, convenience food stores, food marts, pharmacies, or other entities engaged in the retail sale of a limited-line of goods that include milk, bread, soda, and snack food, including those stores that sell alcohol). The proposed ordinance would not apply to other types

[1] Master Environmental Assessment on Single-Use and Reusable Bags, Green Cities California, March 2010.

of retail stores such as department stores, clothing stores, and stores that sell durable goods that do not typically distribute large volumes of single-use plastic bags to customers. Also, the retailers would be required to provide at the point of sale, free of charge, paper bags or reusable bags to consumers participating in the California Special Supplemental Food Program for Women, Infants and Children or in the Supplemental Food Program.

The proposed ordinance would not ban plastic or paper bags that are used by customers and the store to protect or contain meat or prepared food; or used for bagging fruits, vegetables, and other fresh produce; or for other goods that must be protected from moisture, damage or contamination, and which are typically placed inside a carryout bag at the point of sale. Pharmacy plastic bags used to carry out prescription drugs would be exempt from the proposed ordinance, as would be other specialty stores. Dry cleaners could continue to provide dry cleaning plastic bags, and retailers could continue to provide specialty plastic bags for suits, dresses and similar clothing items. Restaurants and other food service providers could continue to provide plastic bags to customers for prepared take-out food intended for consumption off the premises, as could vendors at City farmers' markets.

Project Objectives

The City's objectives for the proposed ordinance include:

- Reducing the billions of single-use plastic carryout bags currently consumed in the City of Los Angeles each year;
- Reducing the adverse environmental impacts associated with single-use plastic carryout bags, including impacts to air quality, biological resources (including marine environments), water quality, and solid waste;
- Deterring the use of single-use paper carryout bags by retail customers in the City
- Promoting a shift toward the use of reusable carryout bags; and
- Reducing litter and the associated adverse impacts to stormwater systems, aesthetics, and the marine environment.

Project Location and Surrounding Uses

The proposed ordinance would apply throughout the City of Los Angeles, which encompasses approximately 469 square miles, stretching from the Angeles National Forest to the north to the Pacific Ocean to the south.

Adjoining areas include unincorporated Los Angeles County, South Bay, the Gateway Cities, the San Gabriel Valley, and the Foothills. The City of Los Angeles' territory surrounds the Cities of Beverly Hills, West Hollywood, and San Fernando, and nearly surrounds the Cities of Culver City and Santa Monica.

Environmental Impacts

The City of Los Angeles prepared this EIR to analyze the potentially significant environmental impacts associated with the proposed ordinance project. The analysis contained in this EIR indicates that the proposed ordinance would result in beneficial impacts with regard to air quality, biological resources, and hydrology and water quality, and solid waste. All other impacts analyzed in this EIR were found to be less than significant. Table S-1 summarizes the environmental impacts associated with the adoption and implementation of the proposed ordinance.

Table S-1
Summary of Environmental Impacts

	Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Air Quality	With the implementation of the proposed ordinance, nearly 2 billion single-use plastic carryout bags per year would be replaced by reusable carryout bags, and the use of single-use paper bags in the City would be deterred by charging a $0.10 fee at the point of sale. As a result, the proposed ordinance would reduce emissions that contribute to ground level ozone and atmospheric acidification. Using data collected by the County of Los Angeles following the implementation of the County's Single Use Bag Ordinance, it is anticipated that the proposed ordinance would result in reducing the emissions that contribute to ground level ozone by approximately 87% and atmospheric acidification by approximately 82% per year.	Impact would be beneficial; no mitigation is required.	Impact would be beneficial; no mitigation is required.
Biological Resources	Elimination of nearly 2 billion single-use plastic bags per year would significantly reduce plastic bag litter that could enter sensitive habitats, thus reducing litter-related harmful impacts to marine, costal, river, and inland sensitive habitats and sensitive wildlife species.	Impact would be beneficial; no mitigation is required.	Impact would be beneficial; no mitigation is required.
Forest Resources	Under a conservative scenario, the proposed ordinance may result in an initial temporary replacement of some single-use plastic carryout bags with paper bags, which are manufactured of wood pulp and recycled materials. However, the preliminary data submitted by stores following the implementation of the Los Angeles County's ordinance - which banned single-use plastic carryout bags and imposed a $0.10 charge on paper carryout bags, shows a significant overall reduction of 34% in paper carryout bag usage within the Los Angeles County between 2009 and 2012, including a nearly 13% reduction within	No significant impact would occur and no mitigation is required.	No significant impact would occur and no mitigation is required.

Table S-1 Summary of Environmental Impacts			
	Environmental Impact	**Mitigation Measures**	**Level of Impact after Mitigation**
	the first three quarters of the year after the enactment of the ordinance[2]. The data indicate that the use of paper carryout bags in large stores not only did not temporarily increase as a result of a ban of single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance. As with the County of Los Angeles, a similar effect is anticipated to occur within the City of Los Angeles. Overall, trees cut down for virgin material to manufacture the paper carryout bags are those trees that are commercially grown for paper manufacturing. Therefore, there would be no increase in cutting of old-growth forest. In addition, the proposed ordinance requires single-use paper carryout bags to have no less than 40% recycled content (and currently, there are paper bags on the market that contain 100% recycled content), which would reduce the loss of trees as a result of any fluctuations in demand for single-use paper carryout bags in City of Los Angeles.		
Hydrology and Water Quality	The implementation of the proposed ordinance would reduce the amount of litter that could enter storm drains, local waterways, and the Pacific Ocean by eliminating nearly 2 billion single-use plastic bags per year, thus improving water quality. The proposed ordinance does not involve any construction of new structures, such as manufacturing facilities, that could result in an increase in impervious surfaces that would potentially reduce groundwater levels. There are no known reusable bags manufacturing facilities in Los Angeles, and future facilities manufacturing reusable bags, if any, would use water supplied by the City from its portfolio of water sources and be subject to the City's water allocations, as applicable.	Impact would be beneficial; no mitigation is required. Impact would be less than significant and no mitigation is required.	Impact would be beneficial; no mitigation is required. Impact would be less than significant and no mitigation is required.
Mineral Resources	The proposed ordinance would not result in impacts to mineral resources in relation to the loss of availability of a known mineral resource recovery site. There are three areas within the	There would be no impact to mineral resources recovery	There would be no impact to mineral resources recovery

[2] County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag

Table S-1
Summary of Environmental Impacts

	Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
	City with mineral resources (sand and gravel) of state-wide or regional importance; however, the proposed ordinance is a ban of single-use plastic carryout bags at retail stores that would not affect these locally-important sand and gravel mineral resources. Oil is a mineral resource that is present, and being extracted, in the City. Single-use plastic bags and reusable non-woven plastic polypropylene bags are produced using a by-product of gas or oil refining. While there are no known single-use plastic or reusable bags manufacturing facilities in Los Angeles, the manufacture of these bags for use within the City would involve petroleum and/or natural gas. However, any potential use of petroleum in the manufacturing process of reusable bags and the remaining single-use plastic bags, for use in the City is anticipated to be offset by the elimination of petroleum used in manufacturing of over 2 billion single-use plastic bags currently consumed in the City every year. No significant impact to local oil fields is anticipated.	sites. Impact would be less than significant and no mitigation is required.	sites. Impact would be less than significant and no mitigation is required.
Sanitation Services	The proposed ordinance includes a public education component that would be conducted by the City's Bureau of Sanitation (BOS) during the grace period, which extends 6 months for large retailer and 12 months for small retailers. The BOS has already been conducting a public education program for several years. The program activities include disseminating information to the public and public outreach, providing information to the City's Neighborhood Councils, working with retail stores throughout Los Angeles to install recycle bins for plastic bags and provide information to the customers, and participating in many major events promoting the use of reusable bags throughout the City to help raise awareness about the benefits of using reusable bags. Since 2005, the BOS has purchased and distributed over 250,000 reusable bags to encourage shoppers to switch from using single-use carryout bags. The BOS would continue these activities throughout the grace period, including conducting workshops with the neighborhood councils about the project. Public outreach and education are an integral part of the BOS's activities. BOS has already been	Impact would be less than significant and no mitigation is required.	Impact would be less than significant and no mitigation is required.

Table S-1 Summary of Environmental Impacts			
	Environmental Impact	**Mitigation Measures**	**Level of Impact after Mitigation**
	conducting an extensive public information program as part of its day-to-day activities. Continuing these activities would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives of sanitation services.		
Traffic	Under the "worst case" scenario where all reusable bags are delivered to retail stores in separate truck loads, the implementation of the proposed ordinance has a potential to add approximately 5.8 truck trips per day. However, the bags are typically delivered to supermarkets and retail stores as part of larger mixed loads of groceries and merchandise. Therefore, there may not be an actual net increase in truck traffic from the change in bag use, particularly since paper and reusable bags could be included in regular mixed loads deliveries to the grocery stores, supermarkets, and other retail stores. Nonetheless, such "worst case" scenario's addition of 5.8 truck trips per day to the streets and highway system within the approximately 469 square-mile City of Los Angeles has no potential to result in any significant traffic impact on the freeway and street system.	Impact, if any, would be less than significant and no mitigation is required.	Impact, if any, would be less than significant and no mitigation is required.
Noise	Under the "worst case" scenario, the addition of 5.8 truck trips to the streets and highway system within the City has no potential to result in any discernable increase in the ambient noise levels. This impact, if any, would be less than significant.	Impact, if any, would be less than significant and no mitigation is required.	Impact, if any, would be less than significant and no mitigation is required.
Utilities and Service Systems	***Water:*** Reusable bags do not require special washing care and would likely be washed on a regular basis along with a household's regular laundry load[3]. Since few if any families have (or are likely to ever have) a large supply of reusable shopping bags that would require laundering all at once, it is anticipated that the reusable bags would be washed in regular laundry loads as	Impact would be less than significant and no mitigation is required.	Impact would be less than significant and no mitigation is required.

[3] Green Cities Master Environmental Assessment, March 2010.

Table S-1 Summary of Environmental Impacts			
	Environmental Impact	**Mitigation Measures**	**Level of Impact after Mitigation**
	needed. This would not result in increased water use, as the wash loads would occur with or without the bags and such bags are not washed often (typically once a month). Additionally, most of the new reusable bags distributed by retailers and others are made from plastics that can be easily cleaned with a damp sponge. Nonetheless, in order to consider the most conservative, albeit unlikely, scenario, even if up to 25% of all reusable bags were to be washed separately by hand instead of along with a household's regular laundry, the potential increase in water demand due to implementation of the proposed ordinance is within the capacity of Los Angeles Department of Water and Power's water supply.		
	Wastewater: The additional wastewater generation under this scenario would not exceed the remaining capacity of the treatment plants serving the City as there is adequate capacity to treat the additional wastewater, and no new facilities would be necessary.	Impact would be less than significant and no mitigation is required.	Impact would be less than significant and no mitigation is required.
	Solid Waste: The City of Los Angeles has implemented a successful comprehensive program of diverting solid waste from landfills and has achieved a diversion rate of 72% as of 12/31/2012. Paper products, including paper grocery bags, are part of the diverted solid waste. Therefore, considering the reported 13% reduction in single-use paper bag usage within the first three quarters after the implementation of the County of Los Angeles ban on single use plastic carryout bags and the diversion rate achieved by the City, the proposed ordinance is anticipated to reduce the amount of solid waste in comparison to that associated with the current use of more than 2 billion single-use plastic bags per year in the City.	Impact would be beneficial; no mitigation is required.	Impact would be beneficial; no mitigation is required.

Alternatives to the Project

The following alternatives to the proposed Single-Use Carryout Bag Ordinance project are examined in this EIR:

Alternative 1: "No Project" Alternative

Pursuant to this alternative, the proposed ordinance would not be adopted and implemented. As a result, the existing use of single-use plastic carryout bags in the City of Los Angeles would remain unchanged with the corresponding adverse environmental effects remaining at current levels. Leaving the use of plastic bags at 2,031,232,707 or more annually would not achieve any of the City's objectives for the project.

Alternative 2: Ban Both Plastic and Paper Single-Use Carryout Bags

Pursuant to this alternative, as with the proposed ordinance, the use of single-use plastic carryout bags in the City would also be reduced by 95%, and 5% of the plastic bags would remain in use. However, the single-use plastic bags would be replaced solely with reusable bags. This alternative would result in an 81% reduction in the annual volume of carryout bags when compared to the proposed ordinance.

As this alternative would also eliminate single-use paper carryout bags, it would promote the shift towards reusable bags to a greater extent than the proposed ordinance. Therefore, in comparison, it would result in much greater beneficial environmental impacts on air quality, biological resources, hydrology and water quality, as well as in additional beneficial impacts associated with a net reduction in greenhouse gas emissions and reduction in truck deliveries. This alternative would achieve all of the City objectives more rapidly and to a greater extent than the proposed ordinance.

Alternative 3: Impose a Higher Fee on Single-Use Paper Carryout Bags

Pursuant to this alternative, a higher fee of $0.25 per paper bag would be charged at the point of sale to deter the use of single-use paper bags and promote a shift toward the use of reusable bags by retail customers in the City. With a higher fee, it is anticipated that the use of paper bags would be reduced in comparison to the proposed ordinance because of the additional cost of $0.15 per bag. Therefore, overall this alternative would result in greater beneficial environmental impacts in comparison to the proposed ordinance as well as in additional beneficial impacts associated with the reduction in greenhouse gas emissions and truck delivery. As with Alternative 2, this alternative would achieve City objectives more rapidly and to a greater extent than the proposed ordinance.

Alternative 4: Proposed Ordinance Without a Grace Period

This alternative, identified during the Notice of Preparation public review process, would eliminate the proposed grace period. As a result, the retailers would begin charging a $0.10 fee for a paper carryout bag at the point of sale on the effective date of the ordinance.

Pursuant to this alternative, the long-term use of carryout plastic, paper, and reusable bags would be the same as with the proposed ordinance. However, with the elimination of the grace period, this alternative would implement the proposed ordinance immediately, with the corresponding immediate result of eliminating 95% of the single use plastic carryout bags at specified retailers and the corresponding shift toward the use of reusable carryout bags within the City of Los Angeles. As a result, the beneficial environmental impacts associated with the proposed ordinance would be realized more rapidly by preventing the likely use of single-use plastic carryout bags throughout the grace period, which would effectively delay the ban on single-use plastic carryout bags by 6 to 12 months. Therefore, in comparison with the proposed ordinance, this alternative would result in an additional environmental benefit of more rapidly eliminating the adverse environmental impacts associated with the single-use plastic carryout bags.

This alternative would achieve the City's objectives more rapidly, including deterring the use of single-use paper carryout bags by retail customers in the City, promoting a shift toward the use of reusable carryout bags, and reducing litter – which includes both plastic and paper bag litter - and the associated adverse impacts to stormwater systems, aesthetics, and the marine environment.

Alternative 5: Impose a Fee on Single-Use Plastic Carryout Bags

AB 2449, which prohibits local jurisdiction from imposing fees on single-use plastic carryout bags, expired on January 1, 2013. In September 2012, SB 1219 was signed into law. SB 1219 extended the AB 2449 in-store recycling program requirements until 2020 but eliminated the AB 2449 prohibition on imposition of fees on single-use plastic carryout bags by local jurisdictions. While this alternative considers a fee of $0.25 for single-use plastic bags at the point of sale, Proposition 26 which took effect on November 3, 2010, requires a two-thirds voter approval of such a fee by a local government.

Other countries have instituted fees on single-use plastic carryout bags, including Ireland, Italy, Belgium, and Switzerland. Assuming the level of effectiveness of the $0.25 fee per plastic bag is comparable to that reported by the Ireland's government after the imposition of such a fee, this alternative could result in up to a 95% reduction in the use of plastic bags in the City of Los Angeles. As a result, the use of carryout bags pursuant to this alternative would be equivalent to that of Alternative 2, whereby the use of single-use plastic carryout bags in the City would also be reduced by 95%, and 5% of the plastic bags would remain in use. However, the plastic bags would be replaced solely with reusable bag, which would result in an 81% reduction in the annual volume of carryout bags when compared to the proposed ordinance.

Environmental effects pursuant to this alternative would be the same as those of Alternative 2. Therefore, in comparison to the proposed ordinance, this alternative would result in much greater beneficial environmental impacts, as well as additional beneficial impacts associated with a net reduction in greenhouse gas emissions and a reduction in truck deliveries. This alternative would also achieve all City objectives more rapidly and to a greater extent than the proposed ordinance.

Environmentally Superior Alternative

Alternative 2, Ban on Both Single-Use Plastic and Single-Use Paper Carryout Bags and Alternative 5, Impose a Fee on Single-Use Plastic Carryout Bags are considered to be the environmentally superior alternatives to the proposed project because they would result in greater beneficial environmental impacts and in a most rapid achievement of all of the City's objectives for the project. However, these alternatives would be inconsistent with the single-use carryout bag ordinances already enacted throughout California, including those of the Cities of San Monica, Manhattan Beach, Malibu, Long Beach, West Hollywood, Laguna Beach, Pasadena, San Jose, San Francisco, Palo Alto, and Calabasas, as well as the Counties of Los Angeles, San Francisco, Santa Clara, San Luis Obispo, Marin, and San Mateo, among others. As such, these alternatives could cause confusion for the customers and present a challenge to the retailers. In addition, imposition of a fee on single-use plastic carryout bags would be subject to Proposition 26 that requires a 2/3 voter approval of such a fee by a local government.

Alternative 3, Impose a Higher Fee on Single-Use Paper Carryout Bags and Alternative 4, Proposed Ordinance Without a Grace Period, are also environmentally superior to the proposed project. In the long term, Alternative 3 could also result in a lower annual use of paper carryout bags due to the additional cost of purchasing those bags, and Alternative 4 would implement the proposed ordinance more rapidly by eliminating the likely 6 to 12-month continuation of the use of plastic carryout bags. Both of these alternatives would achieve all of the City objectives for the project, but to a lesser extent when compared to Alternative 2 and Alternative 5.

Areas of Controversy and Issues to be Resolved

The Notice of Preparation (NOP) process did not identify areas of controversy with regards to the proposed project, except for the issue of the grace period, which is part of the proposed ordinance. The comments about the grace period delineated potential environmental effects and fiscal costs to the retailers if the retailers were to be required to provide paper bags or reusable bags free of charge at the point of sale during that period, which could delay the achievement of the project objectives.

Other comments received expressed the support of the project and many provided information addressing the beneficial effects of the project.

1.0 Introduction

Purpose of the EIR

This Environmental Impact Report (EIR) has been prepared to evaluate the environmental effects of the adoption and implementation of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance banning single-use plastic carryout bags and instituting a charge for paper carryout bags at specified retail stores in the City of Los Angeles. The proposed ordinance constitutes a project for the purposes of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

According to the *Guidelines for Implementation of the California Environmental Quality Act*, an "EIR is an informational document which will inform public agencies, decision makers, and the public generally of the significant environmental effects of a project on the environment, identify possible ways to minimize the significant effects, and describe alternatives to the project."

This EIR is an informational document to be used by decision makers, public agencies, and the general public. It is not a policy document of the City of Los Angeles (City). The EIR will be used by the City of Los Angeles in assessing the impacts of the proposed project prior to taking action on the project.

Legal Requirements and Environmental Process

This EIR has been prepared in accordance with the CEQA (Public Resources Code, Section 21000 et seq.) and the CEQA *Guidelines* (California Code of Regulations, Title 14, Section 15000 et seq.). The City of Los Angeles is the lead agency for this EIR, as defined in Section 21067 of CEQA.

Notice of Preparation and Initial Study

Pursuant to CEQA and the CEQA Guidelines, an Initial Study was prepared for this project. The Initial Study concluded that the project might have a significant effect on the environment.

A Notice of Preparation (NOP) for this EIR was issued by the City of Los Angeles on September 20, 2012 in accordance with the requirements of the CEQA Guidelines, Sections 15082(a) and 15375. The NOP indicated that an EIR was being prepared and invited comments on the project from the public and public agencies. The Bureau of Sanitation also held meetings to receive public input on the proposed project and the NOP and Initial Study, as follows:

- October 2, 2012, 5:30 pm to 7:30 pm - Deaton Auditorium (in Police Administration Building),100 W. 1st Street, Los Angeles, CA 90015
- October 3, 2012, 5:30 pm to 7:30 pm - Wilmington Recreation Center (Multi-Purpose Room), 325 Neptune Ave, Wilmington, CA 90744

- October 4, 2012, 5:30 pm to 7:30 pm - Cheviot Recreation Center Auditorium, 2551 Motor Ave, Los Angeles, CA 90064
- October 10, 2012, 5:30 pm to 7:30 pm - Van Nuys City Hall, 14410 Sylvan Street, Van Nuys, CA 91401

The comments received in response to the NOP primarily addressed the following:

- Support for the proposed ban of single-use plastic carryout bags in the City of Los Angeles
- Concerns about adverse effects associated with the 6-month grace period for large and 12-month grace period for small retailers and support for eliminating the grace period
- Provision of information and evidence on behalf of 1,002,149 stakeholders that the proposed project would result in beneficial – and not adverse, environmental effects
- Addressing the issue of what to use to line trash cans for wet trash in the public education component of the project

The NOP, Initial Study, and the comment letters received in response to the NOP are included in Appendix A of this Draft EIR.

Draft EIR Public Review and Comment

The Draft EIR will be circulated for a 45-day public review. The public is invited to comment in writing on the information contained in the document. Persons and agencies commenting are encouraged to provide information that they believe was missing from the Draft EIR, or to identify where the information could be obtained. All comments received will be responded to in the Final EIR.

Final EIR

Following the public review on the Draft EIR, a Final EIR containing comments received on the Draft EIR and responses to the comments will be prepared.

Contact Person

The primary contact person regarding information presented in this Draft EIR is Karen Coca, Division Manager, Solid Resources Citywide Recycling Division, City of Los Angeles Department of Public Works, Bureau of Sanitation, 1149 S. Broadway, 5th Floor, Mail Stop 944, Los Angeles, CA 90015.

Scope of the Project

The project is the proposed ordinance to ban single-use plastic carryout bags within the City of Los Angeles, charge a fee on single-use paper carryout bags, and promote the use of reusable carryout bags at specified retailers within the City. A six-month grace period would be provided for large retailers and a one-year grace period would be provided for small retailers, which would include a public education component.

Scope of Environmental Analysis

Pursuant to CEQA and the CEQA Guidelines, an Initial Study was prepared for the project. The Initial Study concluded that the proposed project will result in no impact in the following environmental issue areas:

- Aesthetics
- Agriculture Resources
- Cultural Resources
- Geology/Soils
- Land Use/Planning
- Population / Housing
- Public Services (other than Sanitation)
- Recreation

The Initial Study concluded that the project might have a significant effect on the environment with respect to the following issue areas that are addressed in this Draft EIR:

- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Forest Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Mineral Resources
- Noise
- Public Services (Sanitation)
- Traffic
- Utilities/Service Systems

Intended Uses of the EIR

This EIR will be used by the City of Los Angeles to provide information necessary for environmental review of discretionary actions and approvals for the proposed Single-Use Carryout Bag Ordinance. These actions include:

Lead Agency

City of Los Angeles City Council

- Certification of Final Environmental Impact Report
- Adoption of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance

Other Public Agencies

No approval from any other public agency is required.

2.0 Project Description

Project Background

In California, nearly 20 billion (20,000,000,000) single-use plastic carryout bags are used annually, and most end up as litter or in landfills[4]. Each year, billions of these single-use plastic bags are consumed in the City of Los Angeles (City) and end up in the litter stream, impacting Los Angeles communities and the environment. The City spends millions of dollars each year on prevention, cleanup, and other activities to reduce litter. To address this issue, the City has undertaken numerous actions over the years, including:

- In 2004, the City directed Bureau of Sanitation and other partners to create a Los Angeles River Plastics Industry Task Force to reduce the amount of discarded plastics - including plastic bags, reaching the City's waterways;

- In 2005, the Mayor and the City Council adopted "Adopt-a-River" program to clean up litter and undertake anti-litter education program; and

- In 2008, the City Council issued a policy statement to adopt a citywide policy banning the use of plastic carryout bags at all supermarkets and retail establishments and instituting a point of sale fee on all other single-use bags.

Since then, the City Council directed the Bureau of Sanitation to report back to City Council with next steps necessary to implement a citywide ban of single-use plastic carryout bags, and directed the Bureau of Sanitation to begin environmental review and return with an implementation plan for the ban of single-use plastic carryout bags.

Concerns over adverse environmental impacts and negative aesthetic effects of single-use plastic bags litter and its effects on wildlife have led many California's communities to ban such plastic bags within their jurisdictions. More than 50 California Counties and Cities have adopted ordinances banning single-use plastic bags, notwithstanding numerous legal challenges and litigation by certain representatives of the plastic bag industry[5]. Among others, they include:

- City of Santa Monica
- City of Manhattan Beach
- City of Malibu
- City of Long Beach
- City of West Hollywood
- City of Laguna Beach
- City of Pasadena
- City of San Jose

[4] Master Environmental Assessment on Single-Use and Reusable Bags, Green Cities California, March 2010.
[5] Ordinance to Ban Plastic Carryout Bags in Los Angeles County Final EIR, County of Los Angeles. October 2010; Save the Plastic Bag Coalition, http://www.savetheplasticbag.com/

- City of San Francisco
- City of Palo Alto
- City of Calabasas
- County of Los Angeles
- County of San Francisco
- County of Santa Clara
- County of San Luis Obispo
- County of Marin
- County of San Mateo

These jurisdictions, among others, have adopted ordinances banning single-use plastic carryout bags and instituting a point of sale fee for single-use paper carryout bags.

As in California, local jurisdictions have also been adopting bans on single-use plastic carryout bags across the nation, among them the Cities of Washington, D.C.; Telluride, Colorado; Austin, Texas; and Portland, Oregon, as well as the entire State of Hawaii. World-wide, single-use plastic carryout bags have been banned in Mexico City, and by jurisdictions in England, Australia, India, Bangladesh, and Rwanda, among others. Other countries instituted fees on single-use plastic carryout bags, including Ireland, Italy, Belgium, and Switzerland.

The Project

To combat plastic bag litter, the City of Los Angeles is proposing to adopt and implement an ordinance to regulate the use of single-use carryout bags and promote the use of reusable bags within the City. The proposed ordinance would:

(1) Ban plastic single-use carryout bags at the point of sale in the specified retail stores and require retailers to provide reusable bags to consumers for sale or at no charge, and

(2) Mandate a charge on recycled content paper single-use carryout bags at the point of sale in the specified retail stores.

A grace period of six months for large retailers and one year for small retailers would be provided to allow retailers to phase out their stocks of plastic carryout bags. Upon completion of the grace period, retailers would have to charge $0.10 per paper bag, which would be retained by the retailer. During the grace period, the retailers could continue to provide plastic carryout bags, and would not be required to provide paper carryout bags at no cost to consumers for the purpose of carrying out their purchases.

The grace period would include a public education component conducted by the City's Bureau of Sanitation. The Bureau of Sanitation has already been conducting a public education program for several years. Program activities include disseminating information to the public and public outreach, providing information to the City's Neighborhood Councils, working with retail stores throughout Los Angeles to install recycling bins for plastic and paper bags and providing information to the customers, and participating in many major events promoting the use of reusable bags throughout the City to help raise awareness about the benefits of using reusable bags. Since 2005, the Bureau has purchased and distributed 250,000 reusable bags to encourage shoppers to switch from using single-use carryout bags. The Bureau of Sanitation will continue these activities throughout the grace period, including conducting workshops with the

Neighborhood Councils about the project.

The proposed ordinance would apply to the specified retail stores in the City, including large retailers (full-line self-serve retail stores with two million dollars, or more, in gross annual sales, and stores of at least 10,000 square feet of retail space that generate sales or use tax), and small retailers (supermarkets, grocery stores, drug stores, convenience food stores, food marts, pharmacies, or other entities engaged in the retail sale of a limited-line of goods that include milk, bread, soda, and snack food, including those stores that sell alcohol). The proposed ordinance would not apply to other types of retail stores such as department stores, clothing stores, and stores that sell durable goods that do not typically distribute large volumes of single-use plastic carryout bags to customers. Also, the retailers would be required to provide at the point of sale, free of charge, paper bags or reusable bags to consumers participating in the California Special Supplemental Food Program for Women, Infants and Children or in the Supplemental Food Program.

The proposed ordinance would not ban plastic or paper bags that are used by customers and the store to protect or contain meat or prepared food; or used for bagging fruits, vegetables, and other fresh produce; or for other goods that must be protected from moisture, damage or contamination, and which are typically placed inside a carryout bag at the point of sale. Pharmacy plastic bags used to carry out prescription drugs would be exempt from the proposed ordinance, as would be other specialty stores. Dry cleaners could continue to provide dry cleaning plastic bags, and retailers could continue to provide specialty plastic bags for suits, dresses and similar clothing items. Restaurants and other food service providers could continue to provide plastic bags to customers for prepared take-out food intended for consumption off the premises, as could vendors at City farmers' markets.

Project Objectives

The City's objectives for the proposed ordinance include:

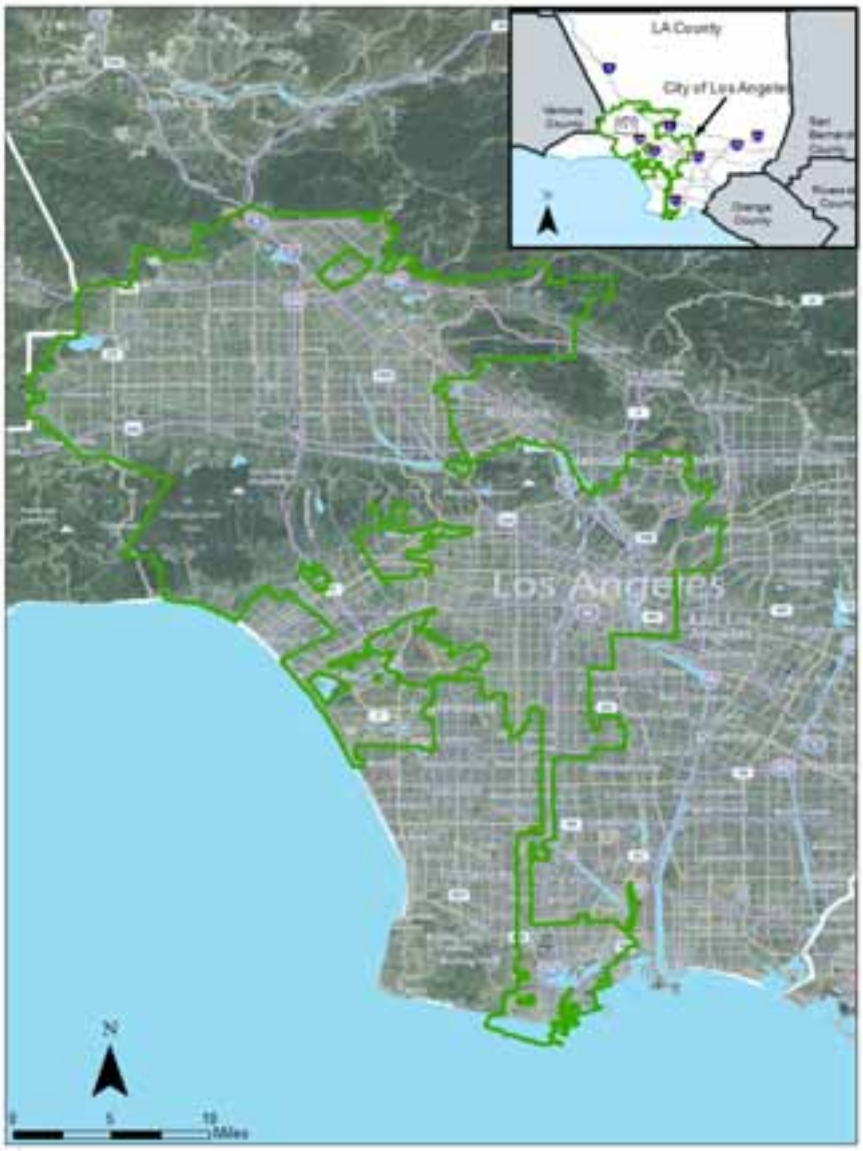
- Reducing the billions of single-use plastic carryout bags currently consumed in the City of Los Angeles each year;
- Reducing the adverse environmental impacts associated with single-use plastic carryout bags, including impacts to air quality, biological resources (including marine environments), water quality, and solid waste;
- Deterring the use of single-use paper carryout bags by retail customers in the City;
- Promoting a shift toward the use of reusable carryout bags; and
- Reducing litter and the associated adverse impacts to stormwater systems, aesthetics, and the marine environment.

Project Location and Surrounding Uses

The proposed ordinance would apply throughout the City of Los Angeles, which encompasses approximately 469 square miles, stretching from the Angeles National Forest to the north to the Pacific Ocean to the south (see Figure 2-1).

Adjoining areas include unincorporated Los Angeles County, South Bay, the Gateway Cities, the San Gabriel Valley, and the Foothills. The City of Los Angeles' territory surrounds the Cities of Beverly Hills, West Hollywood, and San Fernando, and nearly surrounds the Cities of Culver City and Santa Monica.

Figure 2-1
Project Location



Source: UCLA Mapshare, 2012.

Project Actions

The following public actions and approvals are required for the project.

Lead Agency

City of Los Angeles City Council

- Certification of the Final EIR
- Adoption of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance

Other Agencies

No other agency has discretionary authority over any aspect of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance.

3.0 Environmental Impact Analysis

This section of the EIR examines the potential environmental effects of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance for the specific issue areas that were identified through the Initial Study and NOP process as having the potential for a significant impact.

Each environmental issue is evaluated in the following manner:

Environmental Setting describes the existing environmental conditions as they exist before the commencement of the project to provide a baseline for comparing "before the project" and "after the project" environmental conditions.

Impact Criteria define and list specific criteria that were identified through the Initial Study and NOP process as having the potential for a significant impact. Other impact criteria that were fully addressed in the Initial Study for a given issue area (see Appendix A) are not further addressed in the EIR analysis. Appendix G of the CEQA Guidelines is the source of impact criteria for the proposed project in this EIR analysis as these criteria are appropriate to the specifics of the proposed project, and since "….an ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting" (CEQA Guidelines Section 15064 [b]). Principally, "… a substantial, or potentially substantial, adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic and aesthetic significance" constitutes a significant impact. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant" (CEQA Guidelines Section 15382).

Environmental Impact presents evidence, based to the extent possible on scientific and factual data, about the cause and effect relationship between the project and potential changes in the environment. The exact magnitude, duration, extent, frequency, range or other parameters of a potential impact are ascertained to the extent possible to provide facts in support of finding the impact to be or not to be significant. In determining whether impacts may be significant, all the potential effects, including direct effects, reasonably foreseeable indirect effects, and considerable contributions to cumulative effects, are considered. If, after thorough investigation, a particular impact is too speculative for evaluation, that conclusion is noted (CEQA Guidelines Section 15145).

Mitigation Measures are identified, if needed, to reduce or avoid the potentially significant impact identified in the EIR analysis. Standard existing regulations, requirements, and procedures applicable to the project are considered a part of the existing regulatory environment.

Level of Impact after Mitigation indicates what effect will remain after application of mitigation measures, and whether the remaining effect is considered significant. When impacts, even with the inclusion of mitigation measures, cannot be mitigated to a level considered to be less than significant, they are identified as "unavoidable significant impacts."

Cumulative Impact - the impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed ordinance in conjunction with other adopted and pending single-use plastic carryout bag ordinances.

3.1 Air Quality

This section provides an overview of existing air quality conditions and evaluates potential impacts associated with the proposed ordinance. The analysis focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the quantity of pollutants released into the air, measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air, measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

Environmental Setting

Air Pollutants and Ambient Air Quality Standards

Criteria air pollutants are defined as pollutants for which the Federal and State governments have established ambient air quality standards for outdoor concentrations to protect public health. The Federal and State standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. The California State standards are more stringent than Federal standards, especially in the case of respirable particulate matter (PM_{10}) and sulfur dioxide (SO_2).

Table 3.1-1 outlines current Federal and State ambient air quality standards, and sources and health effects of these criteria pollutants. Additional information about health effects associated with each pollutant is provided in the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook, which is hereby incorporated by reference.

Table 3.1-1
Ambient Air Quality Standards and Air Pollutant Sources and Effects

Air Pollutant	State Standards	Federal Standards (Primary)	Sources	Health Effects
Ozone (O_3)	0.09 ppm, 1-hr. avg. 0.07 ppm, 8-hr. avg.	0.075 ppm, 8-hr. avg.	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	Aggravation of respiratory and cardiovascular diseases, irritation of eyes, impairment of cardiopulmonary function, plant leaf injury
Respirable Particulate Matter (PM_{10})	50 $\mu g/m^3$, 24-hr. avg. 20 $\mu g/m^3$, AAM	150 $\mu g/m^3$, 24-hr. avg.	Stationary combustion of solid fuels, construction activities, industrial processes, industrial chemical reactions	Reduced lung function, aggravation of the effects of gaseous pollutants, aggravation of respiratory and cardio-respiratory diseases, increased coughing and chest discomfort, soiling, reduced visibility
Fine	12 $\mu g/m^3$,	12 $\mu g/m^3$,	Combustion from	Health problems, including

Table 3.1-1
Ambient Air Quality Standards and Air Pollutant Sources and Effects

Air Pollutant	State Standards	Federal Standards (Primary)	Sources	Health Effects
Particulate Matter (PM2.5)	AAM	24-hr. avg**	mobile and stationary sources, atmospheric chemical reactions	asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing, and premature deaths.
Carbon Monoxide (CO)	9.0 ppm, 8-hr. avg. 20 ppm, 1-hr. avg.	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	Incomplete combustion of fuels and other carbon-containing substances such as motor vehicle exhaust, natural events, such as decomposition of organic matter	Reduced tolerance for exercise, impairment of mental function, impairment of fetal development, death at high levels of exposure, aggravation of some heart diseases (angina)
Nitrogen Dioxide (NO_2)	0.18 ppm, 1-hr. avg. 0.03 ppm AAA	100 ppb, 1-hr avg. 53 ppb AAA	Motor vehicle exhaust, high-temperature stationary combustion, atmospheric reactions	Aggravation of respiratory illness, reduced visibility, reduced plant growth, formation of acid rain
Sulfur Dioxide (SO_2)	0.25 ppm 1-hr. avg. 0.04 ppm, 24-hr avg.	75 ppb, 1-hr avg.	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, industrial processes	Aggravation of respiratory diseases (asthma, emphysema), reduced lung function, irritation of eyes, reduced visibility, plant injury, deterioration of metals, textiles, leather, finishes, coating, etc.
Lead (Pb)	1.5 $\mu g/m^3$, 30 day avg.	0.15 $\mu g/m^3$, rolling 3-month avg.	Contaminated soil and water	Increased body burden, impairment of blood formation and nerve conduction
Visibility-Reducing Particles	Visibility of 10 miles or more due to particles when relative humidity is less than 70%	No federal standards		Visibility impairment on days when relative humidity is less than 70%

** On December 14, 2012, U.S. EPA lowered the federal primary PM2.5 annual standard from 15.0 micrograms per cubic meter to 12.0 micrograms per cubic meter. The new annual standard will become effective 60 days after publication in the Federal Register.
Abbreviations: ppm = parts per million by volume; ppb = parts per billion by volume; $\mu g/m^3$ = micrograms per cubic meter; AAM = annual arithmetic mean
Sources: California Air Resources Board, Air Quality Standards and Attainment Status data, December 2012; and SCAQMD Air Quality Handbook.

The City of Los Angeles is located within the South Coast Air Basin (Basin). The Basin continues to exceed Federal and State ambient air quality standards for ozone (O_3), particulate matter ($PM_{2.5}$ and PM_{10}), and lead (Pb).

Toxic Air Contaminants (TAC)

TACs are generally defined as contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. TACs are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Other factors, such as the amount of the chemical; its toxicity, and how it is released into the air, the weather, and the terrain, all influence whether the emission could be hazardous to human health. TACs are emitted by a variety of industrial processes such as petroleum refining, electric utility and metal plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust, and may exist as PM_{10} and $PM_{2.5}$ or as vapors (gases). TACs include metals and other particles, gases absorbed by particles, and certain vapors from fuels and other sources.

Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material[6]. The visible emissions in diesel exhaust include $PM_{2.5}$ and PM_{10}. These particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected carcinogens and mutagens. Compared to other air toxics that the California Air Resources Board (CARB) has identified and controlled, diesel PM emissions are estimated to be responsible for about 70% of the total ambient air toxics risk. In addition to these general risks, diesel PM can also be responsible for elevated localized or near-source exposures ("hot-spots").

The emission of toxic substances into the air can be damaging to human health and to the environment. Human exposure to these pollutants at sufficient concentrations and durations can result in cancer, toxics poisoning, and rapid onset of sickness, such as nausea or difficulty in breathing. Other less measurable effects include immunological, neurological, reproductive, developmental, and respiratory problems, some of which may not become apparent for years after exposure. Pollutants deposited onto soil or into lakes and streams affect ecological systems, and eventually human health, through consumption of contaminated food and water. The carcinogenic potential of TACs is a particular public health concern because many scientists currently believe that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of contracting cancer.

Ground Level Ozone and Atmospheric Acidification

In terms of air quality, ground level ozone and atmospheric acidification are of particular concern. Ozone is found in two regions of the Earth's atmosphere – at ground level and in the upper regions of the atmosphere. Both types of ozone have the same chemical composition (O_3). While upper atmospheric ozone protects the earth from the sun's harmful rays, ground level ozone is the main component of smog.

"Smog" is a mixture of pollutants but is primarily made up of ground-level ozone. Smog usually is produced through a complex set of photochemical reactions involving volatile organic compounds (VOCs) and nitrogen oxides in the presence of sunlight that result in the production of ozone. Smog-forming pollutants come from many sources, such as automobile exhausts, power plants, factories, and many consumer products, including paints, hair spray, charcoal starter fluid,

[6]California Air Resources Board, Health Effects of Diesel Exhaust, 2010.

solvents, and even plastic popcorn packaging. In typical urban areas, at least half of the smog precursors come from cars, buses, trucks, and boats.

Major smog occurrences often are linked to heavy motor vehicle traffic, high temperatures, sunshine, and calm winds. Weather and geography affect the location and severity of smog. Because temperature regulates the length of time it takes for smog to form, smog can form faster and be more severe on a hot and sunny day. When temperature inversions occur (warm air stays near the ground instead of rising) and winds are calm, smog may stay trapped over the city for days. As traffic and other sources add more pollutants to the air, the smog gets worse. Smog is often more severe away from the pollution sources because the chemical reactions that cause smog occur in the atmosphere while the reacting chemicals are being moved by the wind. Severe smog and ground-level ozone problems exist in many major cities, including much of California, including the City of Los Angeles.

Ground level ozone - what we breathe - can harm human health. Even relatively low levels of ozone can cause health effects. People with lung disease, children, older adults, and people who are active outdoors may be particularly sensitive to ozone. Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. Children are also more likely than adults to have asthma.

Ozone also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges and wilderness areas. In particular, ozone harms sensitive vegetation, including trees and plants during the growing season.

Air pollutant emissions, in particular emissions of nitrogen and sulfur dioxides (NO_2 and SO_2), have caused regional scale acidification of the atmosphere and sensitive aquatic and terrestrial ecosystems in North America and Europe. These chemical changes commonly known as “acid rain” are making the oceans more acidic (that is, decreasing the pH of the oceans) and affecting terrestrial ecosystems.

Monitored Air Quality

The South Coast Air Quality Management District (SCAQMD) is the agency principally responsible for comprehensive air pollution control in the region and it monitors air quality conditions at 37 locations throughout the Basin. There are six air quality monitoring stations within the SCAQMD’s system that cover most City of Los Angeles communities: North Main Street for Central Los Angeles, VA Hospital for West Los Angeles, Compton – 700 North Bullis Road for South Central Los Angeles, Westchester Parkway for the LAX Airport Area, Burbank – West Palm Avenue for East San Fernando Valley, and Reseda for West San Fernando Valley. The North Main Street Monitoring Station is located near City Hall and was used to characterize existing levels of ambient air quality in the City of Los Angeles.

Table 3.1-2 shows pollutant levels, the State and Federal standards, and the number of exceedances recorded at the North Main Street Monitoring Station. As shown, criteria pollutants CO, NO_2, and SO_2 did not exceed the State and Federal standards from 2009 to 2011. However, the one-hour State standard for O_3 was exceeded one to three times during this period. The 8-hour State standard for O_3 was exceeded up to five times while the 8-hour Federal standard for O_3 was exceeded two times. The 24-hour State standard for PM_{10} was exceeded four times during this period and the annual State standard for $PM_{2.5}$ was also exceeded each year from 2009 to

2011. The 24-hour Federal standard for PM_{10} was not exceeded, while the annual Federal $PM_{2.5}$ was exceeded five to eight times between 2009 and 2011.

Table 3.1-2
2009-2011 Ambient Air Quality Data at the North Main Street Monitoring Station

Pollutant	Pollutant Concentration and Standards	2009	2010	2011
Ozone (O_3)	Maximum 1-hr Concentration (ppm)	0.14	0.10	0.13
	Days 0.09 ppm State 1-hr standard exceeded	3	1	1
	Maximum 8-hr Concentration (ppm)	0.10	0.08	0.07
	Days 0.07 ppm State 8-hr standard exceeded	5	1	0
	Days 0.075 ppm National 8-hr standard exceeded	2	1	0
Carbon Monoxide (CO)	Maximum 1-hr concentration (ppm)	3	3	n/a
	Days 20 ppm State1-hr standard exceeded	0	0	n/a
	Days 35 ppm National 1-hr standard exceeded	0	0	n/a
	Maximum 8-hr concentration (ppm)	2.2	2.3	2.4
	Days 9.0 ppm State 8-hr standard exceeded	0	0	0
	Days 9 ppm National 8-hr standard exceeded	0	0	0
Nitrogen Dioxide (NO_2)	Maximum 1-hr Concentration (ppm)	0.12	0.09	0.11
	Days 0.18 ppm State 1-hr standard exceeded	0	0	0
	Days 0.100 ppm National 1-hr standard exceeded	n/a	n/a	n/a
Respirable Particulate Matter (PM_{10})	Maximum 24-hr concentration ($\mu g/m^3$)	70	41	53
	Days 50 $\mu g/m^3$ State 24-hr standard exceeded	4	0	1
	Days150 $\mu g/m^3$ National 24-hr standard exceeded	0	0	0
Fine Particulate Matter ($PM_{2.5}$)	Maximum 24-hr concentration ($\mu g/m^3$)	64	39	49
	Exceed State Standard (12 $\mu g/m^3$)	Yes	Yes	Yes
	Days 35 $\mu g/m^3$ National 24-hr standard exceeded*	7	5	8
Sulfur Dioxide (SO_2)	Maximum 24-hr Concentration (ppm)	0.002	0.002	0.002
	Days 0.04 ppm State 24-hr standard exceeded	0	0	0
	Days > 0.14 ppm National 24-hr standard exceeded	0	0	0

*On December 14, 2012, U.S. EPA lowered the federal primary PM2.5 annual standard from 15.0 micrograms per cubic meter to 12.0 micrograms per cubic meter. The new annual standard will become effective 60 days after publication in the Federal Register.

n/a = not available

Source: CARB, Air Quality Data Statistics, *Top 4 Summary*, http://www.arb.ca.gov/adam/topfour/topfour1.php, accessed October 22, 2012. CO pollutant concentration was obtained from SCAQMD, Historical Data by Year, available at http://www.aqmd.gov/smog/historicaldata.htm.

Sensitive Receptors

The SCAQMD defines sensitive receptors as persons particularly susceptible to health effects due to exposure to an air contaminant. The examples of land uses (sensitive sites) where sensitive receptors are typically located include schools, playgrounds and childcare centers; long-term health care facilities; rehabilitation centers; convalescent centers; hospitals; retirement homes, and residences. There are numerous sensitive receptors located throughout the City of Los Angeles.

Current Air Pollutant Emissions Associated with Single-Use Carryout Bags

Single-use plastic carryout bags can affect air quality in two ways: through emissions associated with manufacturing processes, and through emissions associated with truck trips for the delivery of single-use carryout bags to retailers. Based on the City of Los Angeles population of approximately 3,825,297 persons in 2012[7], and a statewide estimate of approximately 531 single-use plastic carryout bags used per person per year[8], retail customers in the City of Los Angeles currently use an estimated 2,031,232,707 single-use plastic carryout bags per year.

Various studies have estimated air emissions for the different carryout bags (single-use plastic, paper or reusable bags) to determine a per bag emissions rate. To provide statistics for measuring, or metrics, to determine environmental impacts associated with the proposed ordinance, reasonable assumptions based upon the best available sources of information from the studies utilized in this analysis have been established. These include specific metrics that compare impacts on a per bag basis for single-use plastic, single-use paper and low-density polyethylene (LDPE) reusable carryout bags as follows: (1) air pollutant emissions associated with the manufacturing and transportation of one single-use paper carryout bag result in 1.9 times the impact on atmospheric acidification as air pollutant emissions associated with one single-use plastic carryout bag; (2) similarly, on a per bag basis, a reusable carryout bag that is made of LDPE plastic would result in 3 times the atmospheric acidification compared to a single-use plastic carryout bag if the LDPE bag is only used one time; (3) in addition, on a per bag basis, a single-use paper carryout bag has 1.3 times the impact on ground level ozone formation of a single-use plastic carryout bag; and (4) finally, a reusable carryout bag that is made of LDPE plastic and only used one time would result in 1.4 times the ground level ozone formation of a single-use plastic carryout bag[9,10,11,12,13].

The above statistics use the LDPE carryout bag as a representative reusable bag in evaluating air quality impacts. There is no known available Life Cycle Assessment that evaluates all types of reusable bags (canvas, cotton, nylon, etc.) with respect to potential air pollutant emissions. However, the emissions from all types of reusable bags are lower than emissions from single-use plastic and paper carryout bags because reusable bags are used multiple times, and may be used

[7]California Department of Finance, Demographic Research Unit, 2012 City Population Rankings.
[8]Green Cities Master Environmental Assessment (MEA), March 2010.
[9]Joseph, Stephen L., Letter to the City of Santa Monica: RE: Santa Monica single-use carryout bag ordinance: comments on and objections to Draft Environmental Impact Report, July 22, 2010.
[10]Ecobilan, Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material, February 2004.
[11]Fund for Research into Industrial Development, Growth and Equity (FRIDGE), Socio-Economic Impact of the Proposed Plastic Bag Regulations, 2002.
[12]Green Cities California, Master Environmental Assessment on Single-Use and Reusable Bags, March 2010.
[13]City of Santa Monica, Santa Monica Single-use Carryout Bag Ordinance Final Environmental Impact Report (SCH# 2010041004), January 2011.

100 times or more[14]. Thus, the air pollutant emissions from these bags are expected to be comparable to, or lower than the LPDE bag emissions.

Delivery trucks that transport single-use carryout bags from manufacturers or distributors to the local retailers also contribute air pollutant emissions. Assuming that those deliveries are made in separate dedicated loads by diesel trucks and each truck carries 2,080,000 single-use plastic carryout bags per truck load[15], approximately 977 annual truck trips are needed to deliver the single-use plastic bags consumed in the City. Diesel fuel emissions from these trips contribute to the local and regional air pollutant emissions.

Table 3.1-3 lists the annual emissions contributing to ground level ozone and atmospheric acidification using the per-bag impact rates discussed above and the estimated number of existing single-use plastic carryout bags used in the City. As shown, manufacturing and transportation of single-use plastic bags that are currently used in the City each year generates an estimated 46,718 kilograms (kg) of emissions associated with ground level ozone and 2,201,856 kg of emissions associated with atmospheric acidification.

Table 3.1-3
Estimated Current Emissions from Single-Use Plastic Carryout Bags Contributing to Ground Level Ozone and Atmospheric Acidification (AA)

Number of Bags Used per Year	Ozone Emissions Rate per Bag /a/	Ozone Emissions (kg) per 1,000 Bags /b/	Ozone Emissions per Year (kg)	AA Emission Rate per Bag /a/	AA Emissions (kg) per 1,000 Bags /c/	AA Emissions per Year (kg)
2,031,232,707	1.0	0.023	46,718	1.0	1.084	2,201,856

/a/ Impact rate per bag as stated in Stephen L. Joseph, 2010; Ecobilan, 2004; FRIDGE, 2002; and Green Cities California MEA, 2010; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011, County of San Mateo Single Use Bag Ban Ordinance, June 2012
/b/ Emissions per 1,000 bags from Ecobilan, 2004; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011
/c/ Emissions per 1,000 bags from FRIDGE, 2002; Green Cities California MEA, 2010; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011; County of San Mateo Single Use Bag Ban Ordinance, June 2012.

Regulations Applicable to Manufacturing Facilities

Title V Permit. Title V is a federal program designed to standardize air quality permits and the permitting process for major sources of emissions across the country. The name "Title V" comes from Title V of the 1990 Clean Air Act Amendments, which require the United States Environmental Protection Agency (USEPA) to establish a national, operating permit program. Accordingly, USEPA adopted regulations [Title 40 of the Code of Federal Regulations, Chapter 1, Part 70 (Part 70)], which require states and local permitting authorities to develop and submit a federally enforceable operating permit program for USEPA approval. Title V only applies to "major sources." USEPA defines a major source as a facility that emits, or has the potential to emit any criteria pollutant or hazardous air pollutant at levels equal to or greater than the Major Source Thresholds (MST). The MST for criteria pollutants may vary depending on the

[14]Green Cities California Master Environmental Assessment (MEA), March 2010).
[15]City of Santa Monica, Santa Monica Single-use Carryout Bag Ordinance Final Environmental Impact Report, January 2011; County of San Mateo Single Use Bag Ban Ordinance, June 2012.

attainment status (e.g., marginal, serious, extreme) and the Criteria Pollutant or Hazardous Air Pollutant (HAP) of the geographic area in which the facility is located. Single-use carryout bag manufacturing facilities that emit any criteria pollutant or HAP at levels equal to or greater than the MST of the local air quality management district must obtain, and maintain compliance with, a Title V permit.

South Coast Air Quality Management District Equipment Permits. The SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and Federal ambient air quality standards in the district. SCAQMD programs include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

SCAQMD requires operators that plan to build, install, alter, replace, or operate any equipment that emits or controls the emission of air contaminants to apply for, obtain and maintain equipment permits. Equipment permits ensure that emission controls meet the need for the South Coast Region to make steady progress toward achieving and maintaining federal and state ambient air quality standards. Equipment permits also ensure proper operation of control devices, establish recordkeeping and reporting mechanisms, limit toxic emissions, and control dust or odors. In addition, the SCAQMD routinely inspects operating facilities to verify that equipment has been built and installed as required and to confirm that the equipment operates in compliance with SCAQMD rules and regulations.

Regulations Applicable to Delivery Trucks

On-Road Heavy-Duty Diesel Vehicles (In-use) Regulation. The regulation **(**Division 3, Chapter 1. Section 2025) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Heavier trucks (with gross vehicular weight greater than 26,000 pounds) must be retrofitted with PM filters beginning January 1, 2012, and older trucks must be replaced starting January 1, 2015 according to the schedule specified in the rule. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. t. This regulation is intended to reduce emissions of diesel PM, oxides of nitrogen, and other criteria pollutants. All diesel trucks making deliveries of single-use carryout bags in California would be required to adhere to this regulation.

Diesel-fueled Commercial Motor Vehicle Idling Limit. The purpose of this airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. The regulation applies to diesel-fueled commercial motor vehicles that operate in the State with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. The in-use truck requirements require operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes at any location within California.

Toxic Air Contaminants. The SCAQMD has a long and successful history of reducing air toxics and criteria pollutant emissions in the South Coast Air Basin (Basin). SCAQMD has an extensive control program, including traditional and innovative rules and policies (*Air Toxics Control Plan for the Next Ten Years,* March 2000). To date, the most comprehensive study on air

toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-III)[16], conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-III found that the cancer risk in the region from carcinogenic air pollutants ranges from about 870 in a million to 1,400 in a million, with an average regional risk of about 1,200 in a million.

Impact Criteria

The proposed ordinance would have a significant impact related to air quality if it would:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); and /or
- Expose sensitive receptors to substantial pollutant concentrations.

The SCAQMD has developed specific significance thresholds for operational air quality impacts. A significant impact related to air quality would occur if the proposed project would generate regional emissions that exceed the daily amounts presented in Table 3.1-4.

Table 3.1-4
SCAQMD Daily Operational Emissions Thresholds

Criteria Pollutant	Pounds Per Day
Volatile Organic Compounds (VOC)	55
Nitrogen Oxides (NO_X)	55
Carbon Monoxide (CO)	550
Sulfur Oxides (SO_X)	150
Fine Particulates ($PM_{2.5}$)	55
Particulates (PM_{10})	150
Source**:** SCAQMD, 2012.	

[16] Harbor Community Monitoring Study (HCMS), May 2009.

Environmental Impact

Ozone and Atmospheric Acidification

The intent of the proposed ordinance is to reduce the number of single-use plastic carryout bags used in the City of Los Angeles, reduce the environmental impacts related to single-use plastic carryout bags, deter the use of single-use paper carryout bags, and promote the use of reusable bags by retail customers within the City of Los Angeles.

As described in the Environmental Setting, on a per bag basis, emissions associated with single-use paper carryout bag production and transportation is equivalent to 1.9 times the impact on atmospheric acidification as the production and transportation of a single-use plastic carryout bag that is made of LDPE plastic. On a per bag basis, the production and transportation of a reusable carryout bag that is made of LDPE plastic results in 3 times the atmospheric acidification of the production and transportation of a single-use plastic carryout bag. Reusable bags may be made of various materials other than LDPE, including plant-based textiles such as cotton or canvas. Nonetheless, because LDPE reusable bags are one of the most common types of reusable bags and are of similar durability and weight (approximately 50 to 200 grams) as other types of reusable bags, this analysis utilizes the best available information regarding specific properties on a per bag basis to disclose environmental impacts associated with the proposed ordinance. However, the emissions from all types of reusable bags are lower than single-use plastic and paper carryout bags because reusable bags are used multiple times. Thus, the air pollutant emissions from the production and transportation of these bags are expected to be comparable to the LPDE bag or lower[17]. Similarly, on a per bag basis, the production and transportation of a single-use paper carryout bag has 1.3 times the impact on ground level ozone formation compared to the production and transportation of a single-use plastic carryout bag and the production and transportation of a reusable carryout bag that is made of LDPE plastic results in 1.4 times the ground level ozone formation of the production and transportation of a single-use plastic carryout bag.[18,19,20]

A reusable bag results in greater impacts to ground level ozone formation and atmospheric acidification than a single-use plastic bag on a per bag production and transportation basis; however, unlike single-use plastic bags, reusable carryout bags are intended to be used multiple times, conservatively estimated to be at 52 times, even though reusable bags may be used 100 times or more[21]. Therefore, fewer total single-use carryout bags would need to be manufactured as a shift toward the use of reusable bags occurs. Regulated retailers providing paper carryout bags would be required to sell recycled-content paper carryout bags that are made with a minimum of 40% postconsumer recycled content to customers for $0.10 per bag. This mandatory charge would create a disincentive to customers to request single-use paper carryout bags when shopping at regulated stores and is intended to promote a shift toward the use of reusable carryout bags by consumers in the City, as evidenced by the data collected by the County of Los Angeles

[17]County of Santa Clara, Initial Study for Single-use Carryout Bag, October 2010.
[18]Joseph, Stephen L., Letter to the City of Santa Monica: RE: Santa Monica single-use carryout bag ordinance: comments on and objections to Draft Environmental Impact Report, July 22, 2010.
[19]Fund for Research into Industrial Development, Growth and Equity (FRIDGE), Socio-Economic Impact of the Proposed Plastic Bag Regulations, 2002.
[20]Green Cities California, Master Environmental Assessment on Single-Use and Reusable Bags, March 2010.
[21]This represents a conservative estimate. According to the March 2010 MEA on Single-use and Reusable Bags, reusable bags may be used 100 times or more.

after enacting a ban on single-use carryout plastic bags and instituting a $0.10 charge per paper bag (discussed further below).

This analysis assumes that as a result of the proposed ordinance, about 30% of the plastic carryout bags currently used in the City would be replaced by recycled paper carryout bags, and about 65% would be replaced by reusable bags , as shown in Table 3.1-5. It is assumed that 5% of the existing single-use plastic carryout bags used in the City would remain in use since the proposed ordinance does not apply to some retailers who distribute single-use plastic carryout bags (e.g., restaurants) and these retailers would continue to distribute single-use plastic carryout bags after the proposed ordinance is implemented. Thus, for this analysis, it is assumed that approximately 102 million plastic carryout bags would continue to be used annually within the City after implementation of the proposed ordinance. It is also assumed that approximately 609 million paper carryout bags would replace approximately 30% of the plastic carryout bags currently used in the City. This 1:1 replacement ratio is considered conservative, because the volume of a single-use paper carryout bag (20.48 liters) is generally equal to approximately 1.5 times the volume of a single-use plastic carryout bag (14 liters), such that fewer paper bags would ultimately be needed to carry the same number of items.

Table 3.1-5
Existing Plastic Bag Replacement Assumptions

Type of Bag	Replacement Assumption	Bags Used Post-Ordinance	Explanation
Single-Use Plastic	5% (remaining)	101,561,635	Because the proposed ordinance does not apply to all retailers, some single-use plastic bags would remain in circulation.
Single-Use Paper	30%	609,369,812	Although the volume of a single-use paper carryout bag is generally 150% of the volume of a single-use plastic bag and fewer paper bags would be needed to carry the same number of items, it is conservatively assumed that paper would replace plastic at a 1:1 ratio.
Reusable	65%	25,390,409	Although a reusable bag is designed to be used up to hundreds of times, it is conservatively assumed that a reusable bag would be used by a customer once per week for one year (52 times).
	Total	**736,321,856**	

Source**:** Based on rates utilized in the City of San Jose EIR, City of Santa Monica EIR, and County of San Mateo EIR

To estimate the number of reusable carryout bags that would replace approximately 65% of the 2.031 billion of plastic carryout bags used annually in the City, it is conservatively assumed that a reusable carryout bag would be used by a customer only once per week for one year (52 times). Based on the estimate of 52 uses, approximately 1.32 billion single-use plastic carryout bags that would be removed as a result of the proposed ordinance would be replaced by approximately 25 million reusable carryout bags. This amounts to about seven reusable bags per person per year

based on a City population of 3,825,297. This analysis assumes that as a result of the proposed ordinance the approximately 2.03 billion single-use plastic carryout bags currently used in the City annually would be reduced to approximately 736 million total bags as a result of the proposed ordinance.

It should be noted that no known large-scale manufacturing facilities of carryout bags are located within the City. Nevertheless, for a conservative estimate, emissions associated with both manufacturing and transportation of carryout bags to retailers within the City is estimated in this analysis. Table 3.1-6 provides such a conservative theoretical estimate of the post-ordinance air pollutant emissions from bag manufacturing and transportation that contribute to the development of ground level ozone and atmospheric acidification.

Table 3.1-6
Emissions Acidification from Carryout Bags
Contributing to Ground Level Ozone and Atmospheric Acidification (AA)

Carryout Bag Type	Number of Bags Used per Year	Ozone Emissions Rate per Bag /a/	Ozone Emissions (kg) per 1,000 Bags /b/	Ozone Emissions per Year (kg)	AA Emission Rate per Bag /a/	AA Emissions (kg) per 1,000 Bags /c/	AA Emissions per Year (kg)
Single-Use Plastic	101,561,635	1.0	0.023	**2,336**	1.0	1.084	**110,093**
Single-Use Paper	609,369,812	1.3	0.03	**18,281**	1.9	2.06	**1,255,302**
Reusable	25,390,409	1.4	0.032	**812**	3.0	3.252	**82,570**
			Total	**21,429**		**Total**	**1,447,965**
			Existing	**46,718**		**Existing**	**2,201,856**
			Net Change	**(25,289)**		**Net Change**	**(753,891)**

/a/ Impact rate per bag as stated in Stephen L. Joseph, 2010; Ecobilan, 2004; FRIDGE, 2002; and Green Cities California MEA, 2010; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.
/b/ Emissions per 1,000 bags from Ecobilan, 2004; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011, and County of San Mateo Single Use Bag Ban Ordinance EIR, June 2012.
/c/ Emissions per 1,000 bags from FRIDGE, 2002 and Green Cities California MEA, 2010; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011; and EIR; and County of San Mateo Single Use Bag Ban Ordinance EIR, June 2012.

As shown, under this scenario the increased use of reusable carryout bags in the City would reduce emissions that contribute to ground level ozone by approximately 25,289 kg per year - a 54% reduction, and would reduce emissions that contribute to atmospheric acidification by approximately 753,891 kg per year - a 34% reduction. This represents a "worst case" scenario of bag use associated with the proposed ordinance at the time it goes into effect. According to data collected by the County of Los Angeles after the County's Single-Use Bag Ordinance was enacted, approximately 125,000 paper bags were provided annually per large store compared to approximately 2.2 million plastic bags and 196,000 single-use paper bags provided per store prior to the ordinance going into effect in the third quarter of 2011. Single-use paper carryout bag

usage continues to decline with an overall reduction of 34% between 2009 and the first quarter of 2012, including a nearly 13% reduction occurring within the first three quarters of the year following the enactment of the ordinance[22]. The data indicate that the use of paper carryout bags in large stores not only did not temporarily increase as a result of a ban of single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance. As with the County of Los Angeles, a similar effect is anticipated to occur within the City of Los Angeles. Therefore, it is anticipated that within one year, emissions that contribute to ground level ozone and atmospheric acidification would be approximately 5,890 and 380,958 kg per year, respectively. The net change in emissions that contribute to ground level ozone would be a reduction of approximately 40,828 kg per year - an 87% reduction, and to atmospheric acidification a reduction of approximately 1,820,898 kg per year – an 82% reduction.

Air pollutant emissions from manufacturing facilities are regulated under the Clean Air Act and are subject to requirements set by the SCAQMD. Both paper carryout bag manufacturing facilities and reusable carryout bag manufacturing facilities that emit any criteria pollutant or hazardous air pollutant at levels equal to or greater than the Major Source Thresholds of the local air quality management district are required to obtain and maintain compliance with a Title V permit. Adherence to permit requirements would ensure that a manufacturing facility would not violate any air quality standards. Manufacturing facilities would also be required to obtain equipment permits for emission sources through the local air quality management district which ensures that equipment is operated and maintained in a manner that limits air emissions in the region. Compliance with applicable regulations would ensure that manufacturing facilities would not generate emissions conflicting with or obstructing implementation of the applicable air quality plan, violate any air quality standard or contribute substantially to an existing or projected air quality violation or result in a cumulatively considerable net increase of any criteria pollutant.

As described above, the proposed ordinance would reduce emissions associated with ground level ozone and atmospheric acidification. Therefore, the proposed ordinance would result in a beneficial impact related to regional air quality emissions.

Truck Emissions

Long-term emissions may be generated by trucks that deliver carryout bags (recycled paper and reusable) in the City. California Air Resources Board's EMFAC2011 computer program was used to calculate mobile emissions resulting from the number of trips generated by the proposed ordinance. Under a "worst-case" conservative scenario where all recycle paper and reusable bags are delivered in separate truck loads, the proposed ordinance may generate 5.8 net new truck trips per day each with a roundtrip length of 20 miles. Table 3.1-7 shows that emissions associated with such trips would be negligible and substantially below the SCAQMD regional significance thresholds.

[22] County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag

Table 3.1-7
Emissions from Increased Truck Trips

Emissions Source	Emissions (pounds per day)					
	VOC	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$**	**PM_{10}**
Trucks	<1	<4	<1	0.0	<1	<1
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**55**	**150**
Exceeds Threshold?	No	No	No	No	No	No

However, while the recycled paper and reusable bags may be delivered in dedicated loads to regional distributors who then distribute the bags for deliveries within the City of Los Angeles, the bags are typically delivered to supermarkets and retail stores as part of larger mixed loads of groceries and merchandise[23]. Therefore, there may not be an actual net increase in truck traffic from the change in bag use, particularly since paper and reusable carryout bags could be included more frequently in regular mixed loads deliveries to the grocery stores, supermarkets, and other retail stores. Therefore, impact related to truck emissions, if any, would be less than significant.

Carbon Monoxide Concentrations

There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust fumes from vehicular traffic are the primary source of CO. CO is a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as distance from the source (intersection) increases. The highest CO concentrations are typically found in areas directly adjacent to congested roadway intersections. The 5.8 trips per day that may be generated due to delivery of recycled paper and reusable bags to stores would be dispersed throughout the City and would not be concentrated in any particular area. No significant increase in CO concentrations at sensitive receptor locations would be expected. Therefore, the proposed ordinance would result in a less-than-significant impact related to mobile source CO concentrations.

Toxic Air Contaminant Emissions

The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions. The proposed ordinance would not include any elements that would generate a substantial number of heavy-duty equipment operations or daily truck trips in a single localized area. Any indirect increase in TAC emissions from paper or reusable carryout bag manufacturing facilities affected by the proposed ordinance - though no such facilities are known to be located in the City - would be controlled by the owners of the carryout bag manufacturing facilities in compliance with all applicable local, regional, and national air quality standards. Therefore, the proposed ordinance would result in a less-than-significant impact related to TAC emissions.

[23] City of San Jose Single-Use Carryout Bag Ordinance EIR, October 2010.

Mitigation Measures

Impact related to air quality would be beneficial as the proposed ordinance would reduce the amount of emissions that contribute to ground level ozone and atmospheric acidification. No mitigation measures are required.

Level of Impact after Mitigation

Impact related to air quality would be beneficial as the proposed ordinance would reduce the amount of emissions that contribute to ground level ozone and atmospheric acidification. No mitigation measures are required.

Cumulative Impact

Adopted and pending single-use carryout bag ordinances would continue to reduce the amount of single-use plastic and paper carryout bags used, and promote a shift toward reusable carryout bags. Similar to the proposed ordinance, such ordinances would be expected to generally reduce the overall number of bags manufactured and associated air pollutant emissions, while existing and future manufacturing facilities would continue to be subject to Federal and State air pollution regulations. Similar to the proposed ordinance, other adopted and pending ordinances could incrementally reduce the amount emissions that contribute to ground level ozone and atmospheric acidification, which would result in a significant beneficial effect on air quality. Therefore, the proposed ordinance could contribute to a cumulatively considerable beneficial effect on air quality.

3.2 Biological Resources

This section examines the potential impact of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance on biological resources.

Environmental Setting

The City of Los Angeles is a densely populated area comprising approximately 469 square miles. It is the second most populous city in the United States, with a population of approximately 3,825,297 residents[24]. While the area within the City's boundaries is highly urbanized and densely populated, the City is also home to a rich biodiversity of plant and animal species, and a wide variety of ecosystems and habitats in its mountain and coastal areas[25]. Much of the remaining natural open space in the City is found in or adjacent to the foothill regions of the San Gabriel, Santa Susana, Santa Monica and Verdugo Mountains, the Simi Hills, and along the Pacific Ocean coastline between Malibu and the Palos Verdes Peninsula.

In the natural open space of the Santa Monica/Verdugo Mountain, chaparral, a dense and impenetrable brushland, is the predominant vegetation and supports characteristic wildlife species. In contrast, open-structured coastal scrub and grassland are prevalent on lower-elevation south-facing slopes of these ranges, and also in the Simi Hills, Santa Susana and San Gabriel Mountains within the City. Each of these mountain ranges supports streamside, or riparian woodlands of willow and oak, and occasionally sycamore, cottonwood, alder and maple. Within the Northwest San Fernando Valley, a small area on the north slope of the Santa Susana Mountains supports a coniferous woodland of bigcone spruce (at unusually low elevation); a species not found elsewhere in the City.

The coastal and marine habitats of the City of Los Angeles have been altered by urban development and other human disturbance, and during last century, approximately 95% of wetlands along the Los Angeles coast disappeared largely due to water being diverted by flood control and drainage systems, development of wetland habitats, encroachment, water contamination, and other impacts associated with urbanization[26]. Santa Monica Bay and San Pedro Bay are important coastal resources often threatened by water-born contamination from land-based sources[27]. However, a number of sensitive species still have the potential to occur in these environments. Along the coast, sandy beaches, rocky cliffs, headlands and promontories provide habitat requirements of marine intertidal invertebrates, fishes and mammals, shorebirds, birds-of-prey, migratory songbirds, and waterfowl, as well as numerous unusual and restricted plant species and insects. Similarly, the coastal saltmarsh, saltflats, freshwater marsh, riparian scrub, bluffs and dunes of the southwestern coastal area, including the El Segundo Dunes which

[24] California Department of Finance, Demographic Research Unit, 2012 City Population Rankings.
[25] City of Los Angeles Planning Department. *Conservation Element of the Los Angeles General Plan.* 10 March, 2001 http://cityplanning.lacity.org/
[26] City of Los Angeles Planning Department. Conservation Element of the Los Angeles General Plan, 2001. http://cityplanning.lacity.org/
[27] Ibid.

support the entire world population of the El Segundo Blue butterfly, support a great number of unique, threatened, and endangered plants and animals.

Overall, more than 180 plant and animal species inhabit a diverse range of over 20 types of habitats[28]:

- Chaparral in the Santa Monica/Verdugo Mountain slopes (higher-elevation south-facing slopes)
- Open-structured coastal scrub and grassland in the Simi Hills, Santa Susana, and San Gabriel Mountains (lower-elevation south-facing slopes)
- Sandy beaches, rocky cliffs, headlands, and peninsula dunes
- Marshes and bluffs
- Rivers, creeks, and watersheds
- Bays and the Pacific Ocean

The Los Angeles River, Ballona Creek, Santa Monica Bay, and the Dominguez watershed[29] (see Figure 3.2-1**)** are major watersheds providing biological habitats in the City.

The Los Angeles River watershed covers a land area of approximately 834 square miles. Local stewardship efforts have helped transform the Los Angeles River into a valuable flood protection and recreational resource, as well as a home for a diverse set of local birds, plants, and fish[30]. Ballona Creek, a 9-mile long flood protection channel that drains the Los Angeles basin[31], includes the Ballona wetlands, is one of the two remaining coastal saltmarsh habitats in Los Angeles county, and is used as a breeding ground for several state-listed endangered species. The approximately 414 square-mile Santa Monica Bay watershed is home to numerous fish and avian species, including many sensitive and special status species[32]. The bays and the open ocean are home to a rich range of marine species including brown pelican and marine mammals including whales, seals, southern sea otter, the California sea lion, and many other sensitive species. The Dominguez watershed, located in the southern portion of the City, spans approximately 133 square miles. As it runs through a highly-developed, urbanized area dominated by residential and industrial land uses - including the Port of Los Angeles, it provides value for biological resources primarily within its soft-bottom channels and drainage areas, and in retention and detention basins[33].

[28] City of Los Angeles Planning Department. Conservation Element of the Los Angeles General Plan, 2001. http://cityplanning.lacity.org/

[29] Chapter 9: Infrastructure Systems Element, Los Angeles City General Plan, 2009. (http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm)

[30] Watershed Management Division, Los Angeles Department of Public Works. http://dpw.lacounty.gov/wmd/watershed/LA/

[31] Watershed Management Division, Los Angeles Department of Public Works. http://dpw.lacounty.gov/wmd/watershed/bc/

[32] City of Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.

[33] County of Los Angeles Department of Public Works. Dominguez Watershed Management Final Master Plan, Section 2, 2004. http://dpw.lacounty.gov/wmd/watershed/dc/DCMP/masterplan.cfmhttp://dpw.lacounty.gov/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf

Figure 3.2-1
Major Watersheds

Special Status Species

The City's fish and wildlife resources are diverse mainly due to the wide range of coastal and mountainous inland habitats in the City of Los Angeles. Some of the species are threatened or endangered by extinction. Examples of sensitive species protection and propagation enhancement programs for unique native plant and animal species and migratory species that exist within the City include Belding's Savannah Sparrow, California condor, California Least Tern, California Native Oaks, and the El Segundo Blue butterfly[34]. Special status plant and animal species and sensitive habitats in the City of Los Angeles and the greater Los Angeles area are illustrated in Figure 3.2-2 and Figure 3.2-3.

[34] City of Los Angeles Planning Department. Conservation Element of the Los Angeles General Plan, 2001. http://cityplanning.lacity.org/

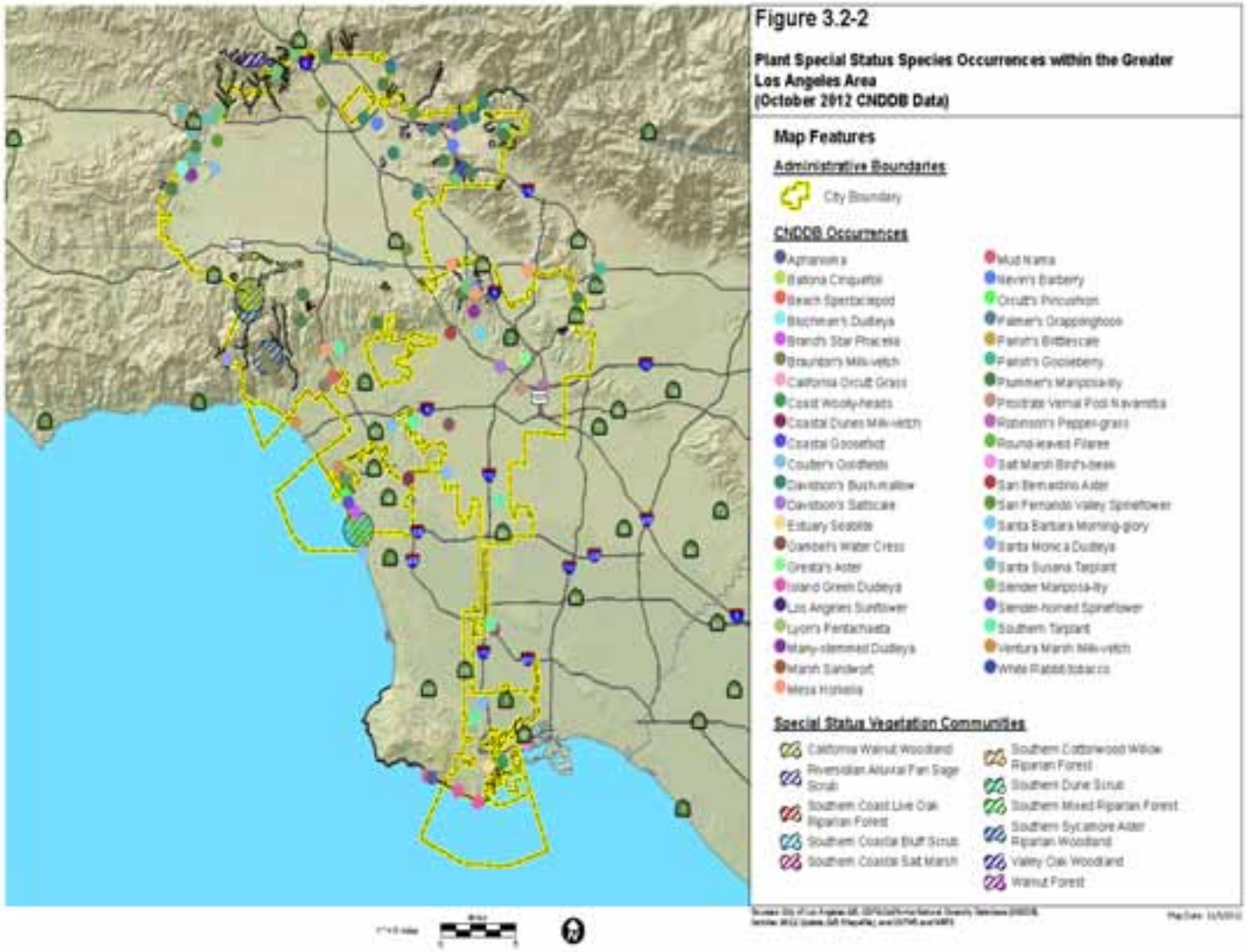


Figure 3.2-2
Plant Special Status Species Occurrences within the Greater Los Angeles Area
(October 2012 CNDDB Data)
Map Features
Administrative Boundaries
City Boundary
CNDDB Occurrences
Aphanisma
Batona Cinquefoil
Beach Spectaclepod
Blochman's Dudleya
Brand's Star Phacelia
Braunton's Milk-vetch
California Orcutt Grass
Coast Woolly-heads
Coastal Dunes Milk-vetch
Coastal Goosefoot
Couter's Goldfields
Davidson's Bush-mallow
Davidson's Saltscale
Estuary Seablite
Gambel's Water Cress
Greata's Aster
Island Green Dudleya
Los Angeles Sunflower
Lyon's Pentachaeta
Many-stemmed Dudleya
Marsh Sandwort
Mesa Horkelia
Mud Nama
Nevin's Barberry
Orcutt's Pincushion
Palmer's Grappinghook
Parish's Brittlescale
Parish's Gooseberry
Plummer's Mariposa-lily
Prostrate Vernal Pool Navarretia
Robinson's Pepper-grass
Round-leaved Filaree
Salt Marsh Bird's-beak
San Bernardino Aster
San Fernando Valley Spineflower
Santa Barbara Morning-glory
Santa Monica Dudleya
Santa Susana Tarplant
Slender Mariposa-lily
Slender-horned Spineflower
Southern Tarplant
Ventura Marsh Milk-vetch
White Rabbit-tobacco
Special Status Vegetation Communities
California Walnut Woodland
Riversidian Alluvial Fan Sage Scrub
Southern Coast Live Oak Riparian Forest
Southern Coastal Bluff Scrub
Southern Coastal Salt Marsh
Southern Cottonwood Willow Riparian Forest
Southern Dune Scrub
Southern Mixed Riparian Forest
Southern Sycamore Alder Riparian Woodland
Valley Oak Woodland
Walnut Forest

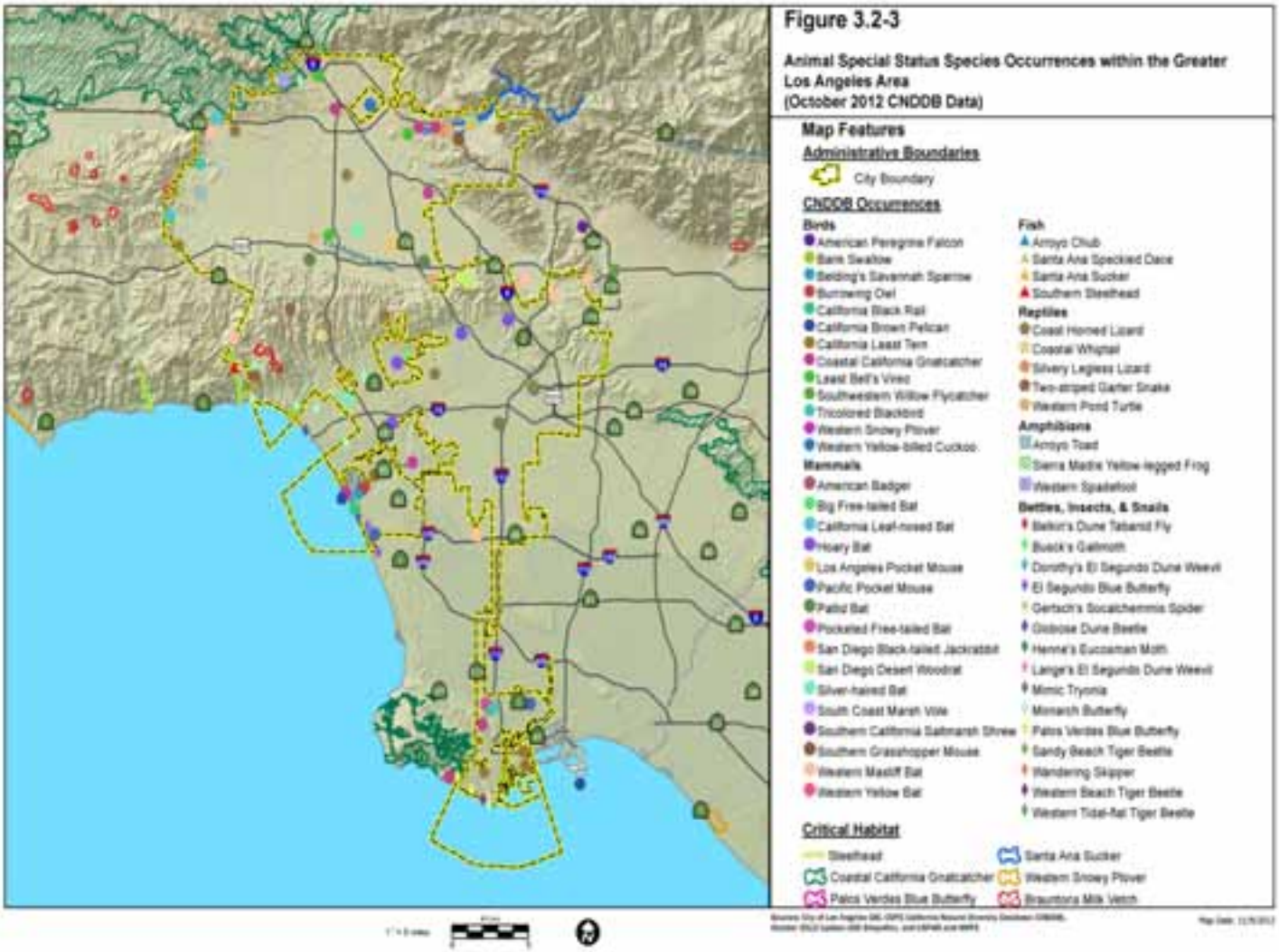


Figure 3.2-3
Animal Special Status Species Occurrences within the Greater Los Angeles Area
(October 2012 CNDDB Data)
Map Features
Administrative Boundaries
City Boundary
CNDDB Occurrences
Birds
American Peregrine Falcon
Barn Swallow
Belding's Savannah Sparrow
Burrowing Owl
California Black Rail
California Brown Pelican
California Least Tern
Coastal California Gnatcatcher
Least Bell's Vireo
Southwestern Willow Flycatcher
Tricolored Blackbird
Western Snowy Plover
Western Yellow-billed Cuckoo
Mammals
American Badger
Big Free-tailed Bat
California Leaf-nosed Bat
Hoary Bat
Los Angeles Pocket Mouse
Pacific Pocket Mouse
Pallid Bat
Pocketed Free-tailed Bat
San Diego Black-tailed Jackrabbit
San Diego Desert Woodrat
Silver-haired Bat
South Coast Marsh Vole
Southern California Saltmarsh Shrew
Southern Grasshopper Mouse
Western Mastiff Bat
Western Yellow Bat
Fish
Arroyo Chub
Santa Ana Speckled Dace
Santa Ana Sucker
Southern Steelhead
Reptiles
Coast Horned Lizard
Coastal Whiptail
Silvery Legless Lizard
Two-striped Garter Snake
Western Pond Turtle
Amphibians
Arroyo Toad
Sierra Madre Yellow-legged Frog
Western Spadefoot
Bettles, Insects, & Snails
Belkin's Dune Tabanid Fly
Busck's Gelinoth
Dorothy's El Segundo Dune Weevil
El Segundo Blue Butterfly
Gertsch's Socatchemmis Spider
Globose Dune Beetle
Henne's Eucosman Moth
Lange's El Segundo Dune Weevil
Mimic Tryonia
Monarch Butterfly
Palos Verdes Blue Butterfly
Sandy Beach Tiger Beetle
Wandering Skipper
Western Beach Tiger Beetle
Western Tidal-flat Tiger Beetle
Critical Habitat
Steelhead
Santa Ana Sucker
Coastal California Gnatcatcher
Western Snowy Plover
Palos Verdes Blue Butterfly
Braunton's Milk Vetch

Effects of Plastic Bags on Existing Biological Resources

One of the most ubiquitous and long-lasting changes to the environment caused by modern anthropogenic forces is the accumulation and fragmentation of plastics throughout terrestrial and aquatic environments[35]. Designed only for single-use, plastic single-use carryout bags have a high propensity to become litter with a number of adverse effects[36]. Plastic films, including plastic bags, account for 7% to 30% of all litter in the Los Angeles area.

Typical single-use plastic carryout bags weigh approximately 5 to 9 grams and are made of thin (less than 2.25 mm thick) high density polyethylene (HDPE)[37]. While a customer may reuse a single-use plastic carryout bag at home for lining waste baskets or picking up pet waste, eventually the bags are disposed in the landfill or recycling facility or are discarded as litter. Although some recycling facilities handle plastic bags, most reject them because they can get caught in the machinery and cause malfunctions, or are contaminated after use. It is estimated that only about 5% of the plastic bags in California and nationwide are currently recycled[38].

The majority of single-use plastic carryout bags end up as litter or in the landfill, and even those in the landfill may be blown away as litter due to their light weight and resistance to breaking-down[39]. Plastic debris has accumulated in forests, hillsides, meadows, and others terrestrial environments; in the open ocean; on shorelines of even the most remote islands; and in the deep sea. Larger and smaller, broken-down or micro-plastic debris, including plastic bags, may choke and starve wildlife, absorb toxic materials and degrade micro-plastics that may be subsequently digested.

Stormwater runoff can carry floatable materials through the street gutters to the catch basins of the stormwater collection system, to nearby creeks, rivers, beaches and harbors. Single-use plastic carryout bags and styrofoam food containers are a significant portion of the trash in urban surface water runoff, and plastic bag litter comprises up to 25% of the litter stream entering the Los Angeles River Watershed via storm drains[40].

The accumulation of plastic fragments in marine environments is of particular concern because they are difficult to remove from the environment and because they have the potential to be ingested by organisms at all levels of the food chain. Over 260 species of wildlife, including invertebrates, turtles, fish, seabirds, and mammals have been reported to ingest or become entangled in plastic debris. The harmful results include impaired movement and feeding, reduced reproductive ability, lacerations, ulcers, and death[41]. Sea turtles sometimes mistake plastic bags for jellyfish, one of their primary food sources. Many have been found bloated with plastic bags in their digestive tracts or gut[42]. The small plastic resin pellets used to manufacture plastic bags

[35] Barnes D.K.A., Galgani F., Thompson, R.C., Barlaz M. "Accumulation and fragmentation of plastic debris in global environments." Philosophical Transactions of The Royal Society of Biological Sciences. 364 (1526). 2009. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873009/

[36] Heal the Bay, Surfrider Foundation, 5 Gyres, 7th Generation Advisors, Team Marine Comments on Initial Study – City of Los Angeles' Single-Use Bag Ordinance, October 18, 2012.

[37] Santa Monica Single-use Carryout Ordinance EIR, City of Santa Monica, 2011.

[38] US EPA, 2005; Green Cities California MEA, 2010; and Boustead, 2007.

[39] Master Environmental Assessment on Single-use and Reusable Bags. March 2010.

[40] Heal the Bay, Surfrider Foundation, 5 Gyres, 7th Generation Advisors, Team Marine Comments on Initial Study – City of Los Angeles' Single-Use Bag Ordinance, October 18, 2012.

[41] Green Cities California Master Environmental Assessment on Single-use and Reusable Bags. March 2010.

[42] Ibid.

often flow to storm drains. Mistaken for fish eggs, they are also often consumed by marine life[43]. According to the Los Angeles Regional Water Quality Control Board, a major trash problem is the broader phenomenon that affects ocean waters, as small pieces of plastic called "nurdles" float at various depths in the ocean. As sunlight and UV radiation renders plastic brittle, wave energy pulverizes the brittle material, with a subsequent chain of adverse effects on the various filter-feeding organisms found near the ocean's surface. Studies indicate that in the North Pacific the number of large floating plastic and smaller fragments is increasing[44].

The proportion of macro- and micro-plastic particles in the ocean can vary globally. According to the 2007 International Coastal Clean-up (ICC) report by the Ocean Conservancy, plastic bags were the fourth most common debris item collected worldwide. Over 7 million plastic bags were collected during annual ICC events over the last 25 years[45]. In 2005, the ICFC found that 2.2% of animals found dead during the 2004 survey had been entangled by plastic bags – one of many harmful biological effects of plastic bag litter in coastal and marine habitats[46]. Literature on the quantifiable effects of plastic bag debris on wildlife continues to expand as researchers strive to fully understand the environmental consequences on biological resources, since in particular, environmental consequences of microscopic debris in the deep sea is still poorly understood[47].

Impact Criteria

The proposed project would have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service; and/or

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

[43] Green Cities California: Master Environmental Assessment on Single-use and Reusable Bags. March 2010.
[44] Watershed Protection Division, Department of Public Works, Bureau of Sanitation, City of Los Angeles. City of Los Angeles High Trash-Generation Areas and Control Measures. January 2002.
[45] Heal the Bay, Surfrider Foundation, 5 Gyres, 7th Generation Advisors, Team Marine Comments on Initial Study – City of Los Angeles' Single-Use Bag Ordinance, October 18, 2012.
[46] Green Cities California: Master Environmental Assessment on Single-use and Reusable Bags. March 2010.
[47] Barnes D.K.A., Galgani F., Thompson, R.C., Barlaz M. "Accumulation and fragmentation of plastic debris in global environments." Philosophical Transactions of The Royal Society of Biological Sciences. 364 (1526). 2009: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873009/

Environmental Impact

The proposed City of Los Angeles Single-Use Carryout Bag Ordinance does not include any physical activities that would result in direct impacts on biological resources. The ordinance would prohibit specified retail stores from providing single-use plastic carryout bags to customers, place a $0.10 charge per bag on the distribution of paper carryout bags, and promote the use of reusable bags in the City of Los Angeles. Reusable bags have not been widely noted to have adverse impacts upon biological resources. Although reusable bags do eventually get discarded and become part of the waste stream, the fact that they can be reused multiple times means that the number of reusable bags in the waste stream is much lower than the number of single-use paper or plastic carryout bags, which are generally only used once or twice. The smaller number of reusable bags in the waste stream means that reusable bags are less likely to be littered[48] and due to their heavier weight in comparison to single-use plastic and paper bags, reusable bags are less likely to be blown from a landfill or trash receptacles and thus less likely to become litter[49]. Therefore, the reusable bags are less likely to end up in wildlife habitats[50].

Single-use paper carryout bags are less likely to become litter compared to single-use plastic carryout bags because of their heavier weight, biodegradability of the materials, and recyclability[51], and therefore, the single-use paper carryout bags are less likely to end up in wildlife habitats. The proposed ordinance is anticipated to deter the use of single-use paper carryout bags by instituting a point of sale fee for the bags. The preliminary data submitted by stores during the first three quarters of the year following Los Angeles County's ordinance - which banned single-use plastic carryout bags and imposed a charge on single-use paper carryout bags, shows a significant reduction of 13% in paper bag usage within Los Angeles County after the enactment of the ban compared to usage prior to the enactment of the ordinance[52]. This data shows that the use of paper bags at retail stores not only did not temporarily increase as a result of a ban on single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance.

Impacts to State-designated Sensitive Habitats

Litter, including single-use plastic carryout bags, enters terrestrial and marine environments Floatable trash has been noted to inhibit the growth of aquatic vegetation, decreasing spawning areas and habitats for fish and other living organisms[53]. The proposed ordinance is intended to reduce the amount of litter attributed to plastic bag waste, which would be expected to result in a beneficial indirect impact upon State-designated sensitive habitats by reducing the amount of litter in these areas.

Single-use paper carryout bags also have the potential to enter the terrestrial and marine environment as litter. Paper carryout bags are typically produced from kraft paper and weigh anywhere from 50-100 grams, depending on whether or not the bag includes handles[54]. A single-

[48] Ordinances to Ban Plastic Carryout Bags in Los Angeles County EIR, Los Angeles County, 2010.
[49] Heal the Bay, Surfrider Foundation, 5 Gyres, 7th Generation Advisors, Team Marine Comments on Initial Study – City of Los Angeles' Single-Use Bag Ordinance, October 18, 2012.
[50] Ordinances to Ban Plastic Carryout Bags in Los Angeles County EIR, Los Angeles County, 2010
[51] Green Cities California MEA, 2010
[52] County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag
[53] City of Los Angeles High Trash Generation Areas and Control Measures, January 2002.
[54] AEA Technology, 2009.

use paper carryout bag weighs substantially more (approximately 40-90 grams more) than single-use plastic bags. Because of the weight, biodegradability of the materials, and recyclability, single-use paper bags are less likely to become litter compared to single-use plastic bags[55]. In addition, because single-use paper bags are not as resistant to breakdown, there would be less risk of entanglement if entering the marine environment compared to single-use plastic bags. Also, although not a healthy food source, if ingested, a single-use paper bag can be chewed effectively and may be digested by many species including marine animals[56]. Thus, although single-use paper bag litter may enter habitats and affect sensitive species in the terrestrial and marine environment, the impact would be less than that of single-use plastic bags. In addition, as discussed previously the data collected by the County of Los Angeles showed that the use of paper bags in large stores not only did not temporarily increase as a result of a ban of single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance.

Reusable bags may also become litter and enter the terrestrial and marine environment; however, these bags differ from the single-use bags in their weight and longevity. Reusable bags can be made from plastic, vinyl, or from a variety of plant-based textiles, such as cotton. Built to withstand many uses, reusable bags weigh at least 10 times what a single-use plastic bag weighs and 2 times what a single-use paper bag weighs, therefore restricting the movement by wind. Reusable bags are typically reused multiple times, and then usually disposed either in a landfill or in a recycling facility. Because of the weight and sturdiness of these bags, reusable bags are less likely to be discarded as litter, or carried from landfills by wind as litter compared to single-use plastic and paper carryout bags. In addition, since reusable bags can be used 100 times or more[57], reusable bags would be disposed of less often than single-use carryout bags. As such, reusable bags are less likely to enter the terrestrial and marine environment as litter. Therefore, reusable bags would generally be expected to result in fewer impacts to sensitive species than single-use plastic and paper carryout bags.

Impacts to Rare, Threatened, and Endangered Species

A number of special status species occur or have a potential to occur within the City of Los Angeles, as illustrated in Figures 3.2-2 and 3.2-3.

According to the Regional Water Quality Control Board (RWQCB) for the Los Angeles Region, trash has potentially harmful impacts to aquatic species, and plastic bags are one of the most common items of trash observed by RWQCB staff[58]. Seabirds, sea turtles, and marine mammals that feed on or near the ocean surface are especially prone to ingesting plastic debris that floats[59]. The impacts include fatalities as a result of ingestion, starvation, suffocation, infection, drowning, and entanglement[60]. Preventing trash from entering water bodies, such as the Los Angeles River, has the potential to improve habitats and aquatic life. The proposed City of Los Angeles Single-Use Carryout Bag Ordinance is expected to promote a shift to the use of reusable carryout bags

[55] Green Cities California, Master Environmental Assessment on Single-use and Reusable Bags, March 2010.
[56] Ibid
[57] Ibid
[58] Regional Water Quality Control Board, Los Angeles Region. Trash Total Maximum Daily Loads for the Los Angeles River Watershed, July 2007.
[59] California Ocean Protection Council, 2008; National Research Council, 2008; and U.S. EPA, 2002
[60] California Ocean Protection Council, 2008; Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings – Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In Philosophical Transactions of the Royal Society Biological Sciences, 364: 2013–2025.

by the City of Los Angeles retail customers and would, therefore, incrementally reduce the amount of litter associated with single-use plastic carryout bags entering water bodies and terrestrial environments. Stores making available paper carryout bags would be required to sell paper carryout bags made with a 40% post-consumer recycled content to customers for not less than $0.10 per bag. This requirement would create a deterrent to customers to request single-use paper carryout bags when shopping at regulated stores and is intended to promote a major shift toward the use of reusable carryout bags by consumers in the City of Los Angeles. Removing nearly 2 billion single-use plastic carryout bags consumed annually in the City would be expected to generally reduce litter-related impacts to sensitive species, including rare, threatened, or endangered species. Therefore, sensitive species would benefit from the proposed ordinance, which would reduce the amount of litter which could enter the terrestrial and marine environments and habitats. Impact would be beneficial.

Impacts to Federally Protected Wetlands

Removing nearly 2 billion single-use plastic carryout bags that are consumed in the City annually would be expected to improve surface water quality by reducing the potential for single-use plastic carryout bags to end up in surface waters[61]. Therefore, the proposed ordinance would be anticipated to result in a beneficial impact to federally protected wetlands.

Mitigation Measures

Impact to biological resources would be beneficial and no mitigation is required.

Level of Impact after Mitigation

Impact to biological resources would be beneficial and no mitigation is required.

Cumulative Impact

Adopted and pending carryout bag ordinances would generally have beneficial effects with respect to sensitive biological resources since each ordinance is intended to reduce the amount of single-use plastic carryout bags in each respective jurisdiction, which would reduce litter that enters terrestrial and marine habitats. The impact associated with the proposed City of Los Angeles Single-use Carryout Bag Ordinance on biological resources would also be beneficial. Therefore, the proposed ordinance is anticipated to contribute to the regional beneficial cumulative impact to biological resources.

[61] Anacostia Watershed Society. December 2008.

3.3 Greenhouse Gas Emissions

This section provides an overview of existing greenhouse gas (GHG) conditions and evaluates the climate change impacts associated with the proposed ordinance.

Environmental Setting

The greenhouse effect refers to a planet-wide, overall warming that results when the atmosphere traps heat radiating from Earth toward space. Certain gases in the atmosphere act like the glass in a greenhouse – allowing sunlight to pass into the greenhouse, but blocking heat from escaping into space. The gases that contribute to the greenhouse effect include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrogen dioxide (NO_2), and chlorofluorocarbons. While the greenhouse effect is essential to life on earth, emissions from burning fossil fuels, deforestation, and other causes have increased the concentration of greenhouse gases (GHGs) to dangerous levels.

In addition to CO_2, CH_4, and NO_2, GHGs include hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and water vapor. Of all the GHGs, CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. CO_2 comprised 83.3% of the total GHG emissions in California in 2002. The other GHGs are less abundant but have higher global warming potential than CO_2. To account for their higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. The CO_2e of CH_4 and NO_2 represented 6.4% and 6.8% respectively, of the 2002 California GHG emissions. Other high global warming potential gases represented 3.5% of these emissions. In addition, there are a number of human-made pollutants - such as carbon monoxide, nitrogen oxides, non-methane volatile organic compounds (VOCs), and sulfur dioxide - that have indirect effects on terrestrial or solar radiation absorption by influencing the formation or destruction of other climate change emissions.

Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation (rain/hail/snow) patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Scientists have projected that the average global surface temperature could rise by 1.0-4.5 degrees Fahrenheit (°F) (0.6-2.5 degrees Celsius (°C)) in the next 50 years, and the increase may be as high as 2.2-10°F (1.4-5.8°C) in the next century. According to the California Environmental Protection Agency (Cal/EPA) 2010 Climate Action Team Biennial Report, potential impacts of climate change in California may include loss in snow pack, sea level rise,

more extreme heat days per year, more high ozone days, more large forest fires, and more drought years[62]. Below is a summary of some of the most important and far-reaching potential effects that could occur in California as a result of climate change.

Sea Level Rise. Climate change has the potential to induce substantial sea level rise in the coming century[63]. The rising sea level increases the likelihood and risk of flooding. The study identifies a sea level rise on the California coast over the past century of approximately 8 inches. Based on the results of various global climate change models, sea level rise is expected to continue. The California Climate Adaptation Strategy estimates a sea level rise of up to 55 inches by the end of this century.

Air Quality. Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State[64].

Water Supply. Analysis of paleoclimatic (pre-historic) data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future water supplies in California. However, the average early spring snowpack in the Sierra Nevada decreased by about 10% during the last century, a loss of 1.5 million acre-feet of snowpack storage. During the same period, sea level rose 8 inches along California's coast. California's temperature has risen about 1°F (about 0.6°C), mostly at night and during the winter, with higher elevations experiencing the highest increase. Many Southern California cities have experienced their lowest recorded annual precipitation twice within the past decade. In a span of only two years, Los Angeles experienced both its driest and wettest years on record.

This uncertainty complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The Sierra snowpack provides the majority of California's water supply by accumulating snow during our wet winters and releasing it slowly during our dry springs and summers. Based upon historical data and modeling, the California Department of Water Resources projects that the Sierra snowpack will experience a 25% to 40% reduction from its historic average by 2050, and the climate change is also anticipated to bring warmer storms that result in less snowfall at lower elevations, reducing the total snowpack.

Hydrology. As discussed above, climate change could potentially affect: the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flash floods, extreme rain or snow events, coincidental high tide and high runoff events; sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise may be a product of climate change through two main processes: expansion of sea water as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply due to salt water intrusion. Increased storm intensity and

[62]California Environmental Protection Agency, Climate Action Team Biennial Report, April 2010.
[63]California Climate Change Center, The Impacts of Sea-Level Rise on the California Coast, May 2009.
[64]California Energy Commission, Inventory Draft 2009 Biennial Report to the Governor and Legislature, Staff Draft Report, March 2009.

frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture. California has a $30 billion agricultural industry that produces half of the country's fruits and vegetables. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater air pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality[65].

Ecosystems and Wildlife. Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the average global surface temperature could rise by 1.0-4.5°F (0.6-2.5°C) in the next 50 years, and 2.2-10°F (1.4-5.8°C) in the next century, with substantial regional variation. Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Sea level could rise as much as 2 feet along most of the U.S. coast. Rising temperatures could have four major impacts on plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes, such as carbon cycling and storage[66,67].

The above-mentioned potential impacts identify the possible effects of climate change at a global and potentially statewide level. In general, scientific modeling tools are currently unable to predict specifically what impacts would occur locally with a similar degree of accuracy. In general, regional and local predictions are made based on downscaling statewide models[68].

Global Greenhouse Gas Emissions

Data describing atmospheric GHG concentrations over the past 800,000 years show that concentrations of CO_2 have increased since pre-industrial times, from approximately 280 parts per million (ppm) to approximately 353 ppm in 1990 and approximately 379 ppm in 2005.[69] In 2000, the United Nations International Panel on Climate Change described potential global emission scenarios for the coming century. The scenarios vary from a best-case characterized by low population growth, clean technologies, and low GHG emissions; to a worst-case where high population growth and fossil-fuel dependence result in extreme levels of GHG emissions. While some degree of climate change is inevitable, most climate scientists agree that to avoid dangerous climate change, atmospheric GHG concentrations need to be stabilized at 350 to 400 ppm.

California Greenhouse Gas Emissions

Based upon the California Air Resources Board (CARB) California Greenhouse Gas Inventory for 2000-2009[70], California produced 457 million metric tons of CO_2e in 2009. The major source

[65]California Climate Change Center, Climate Scenarios for California, 2006.
[66]Parmesan, C., Ecological and Evolutionary Responses to Recent Climate Change, 2004.
[67]Parmesan C, Galbraith H., Observed Ecological Impacts of Climate Change in North America, Pew Center for Global Climate Change, 2004.
[68]California Energy Commission, Inventory Draft 2009 Biennial Report to the Governor and Legislature. Staff Draft Report, March 2009.
[69]City of West Hollywood, Climate Action Plan, September 6, 2011.
[70] (http://www.arb.ca.gov/cc/inventory/data/data.htm)

of GHG in California is transportation, contributing 38% of the State's total GHG emissions. Electricity generation is the second largest source, contributing 23% of the State's GHG emissions.

Greenhouse Gas Emissions from Carryout Bags

Carryout bags have the potential to contribute to the generation of GHGs through emissions associated with manufacturing process, through truck trips delivering carryout bags to retailers, and through disposal as part of landfill decomposition.

Manufacturing Process. The manufacturing process for plastic carryout bags, whether single-use or reusable, starts with petroleum and/or natural gas, and consumes energy that generates GHG emissions. In addition, fertilizers that are used on crops for cotton, pulp, and similar materials which are utilized in the manufacture of plant-based textile reusable carryout bags, also generate GHG emissions. The amount of GHG emissions varies depending on the type and quantity of carryout bags produced. The manufacturing process is the largest emitter of GHGs due to the high volume of fuel that is used during the process.

Truck Trips. Delivery trucks that transport carryout bags from manufacturers or distributors to local retailers also generate GHG emissions. Based on a baseline population estimate in the City of 3,825,297 persons in 2012 and a statewide estimate of approximately 531 single-use plastic carryout bags used per person per year, retail customers in the City currently use an estimated 2,031,232,707 single-use plastic carryout bags per year. Assuming 2,080,000 plastic bags per truck load, approximately 977 annual truck trips (an average of about 2.7 trips per day) would be needed to deliver these carryout bags[71].

Disposal/Degradation. Most carryout bags that do not became litter or are not recycled are deposited in a landfill where they are left to decompose and degrade. Depending on the type and materials used, a carryout bag will degrade at various rates. CH_4 is emitted when carryout bag materials degrade in anaerobic conditions in a landfill[72].

GHG Emission Rates per Bag. Various studies have estimated GHG emissions for the different carryout bags (single-use plastic, paper or reusable bags) to determine a per bag GHG emissions rate. The Boustead Report compared single-use plastic and paper carryout bags and assumed that one single-use paper bag could carry the same quantity of groceries as 1.5 single-use plastic bags[73]. Based on the Boustead Report, 1,500 single-use plastic bags would generate 0.04 metric tons of CO_2e as a result of manufacturing, transport, and disposal. Based on the Scottish Report, GHG emissions associated with the manufacture, use, and disposal of a single-use paper bag are 3.3 times greater than the emissions generated by the manufacture, use and disposal of a single-use plastic bag[74]. Thus, based on the single-use plastic bag GHG emissions rate of 0.04 metric tons CO_2e per 1,500 from the Boustead Report, single-use paper bags would emit 0.132 metric tons CO_2e per 1,000 bags (0.04 x 3.3 = 0.132). If only used once, the manufacture, use and disposal of a reusable low-density polyethylene (LDPE) carryout bag results in 2.6 times the GHG emissions of a single-use high-density polyethylene (HDPE) plastic bag[75]. Therefore,

[71]City of Santa Monica, Santa Monica Single-use Carryout Bag Ordinance Final Environmental Impact Report (SCH# 2010041004), January 2011.
[72]Green Cities California, Master Environmental Assessment on Single-Use and Reusable Bags, March 2010.
[73]Boustead Consulting and Associates Ltd., Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper, 2007.
[74]AEA Technology. 2005. Proposed Plastic Bag Levy - Extended Impact Assessment (Scottish Report), 2005.
[75]Ibid.

reusable LDPE carryout bags would emit 0.104 metric tons CO_2e per 1,000 bags if used only once; if used 20 times, a reusable LDPE carryout bag results in 10% of the GHG emissions of a single-use HDPE plastic bag[76].

The above statistics use the reusable LDPE carryout bag as a representation of reusable bags in evaluating GHG impacts. (There is no known available Life Cycle Assessment that evaluates all types of reusable bags, such as canvas, cotton, etc. with respect to potential GHG emissions) However, given the potential high rate of reuse of all types of reusable bags[77], the GHG emissions from these bags are expected to be comparable to or lower than the LPDE bag.

Table 3.3-1 lists the GHG emissions using the per-bag impact rates discussed above and the estimated number of existing single-use plastic bags used in the City. Manufacturing and transportation of single-use plastic bags currently used in the City each year generates an estimated 54,166 metric tons CO_2e per year.

Table 3.3-1
Current Greenhouse Gas Emissions from Plastic Carryout Bags

Bag Type	Number of Bags Used per Year	GHG Impact Rate per Bag	CO_2e Emissions (metric tons per 1,500 bags) /a/	CO_2e per Year (metric tons)	CO_2e per Person /b/
Single-Use Plastic	2,031,232,707	1.0	0.04	54,166	0.014

/a/ Based on Boustead Report, 2007; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011, San Mateo County Single-Use Bag Ban Ordinance Final EIR, December 2012.
/b/ Based on the 2012 City population of 3,825,297, California Department of Finance Demographic Research Unit.

Greenhouse Gas Emissions and Climate Change Regulations

A number of federal, state, regional, and local laws, policies and regulations have been developed to combat global warming and climate change. The federal laws, policies and regulations most applicable to the proposed project include:

Energy Independence and Security Act. The Energy Independence and Security Act of 2007 includes several key provisions that will increase energy efficiency and the availability of renewable energy, which are expected to reduce greenhouse gas emissions. First, the Act sets a Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel by 2022. Second, it increased Corporate Average Fuel Economy Standards to require a minimum average fuel economy of 35 miles per gallon for the combined fleet of cars and light trucks by 2020. Third, the adopted bill includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.

[76] Ibid.
[77] This represents a very conservative estimate since according to the Green Cities California MEA on Single-use and Reusable Bags, reusable bags may be used 100 times or more.

National Fuel Efficiency Policy. The National Fuel Efficiency Policy aims at increasing fuel economy and reducing greenhouse gas pollution.[78] The Policy is expected to increase fuel economy by more than 5% by requiring a fleet-wide average of 35.5 miles per gallon by 2016 starting with model years 2012. However, federal fuel economy standards have not yet been promulgated to establish specific benchmarks.

Heavy Duty Regulations. The Heavy-Duty National Program establishes the first fuel efficiency requirements for medium- and heavy-duty vehicles beginning with the model year 2014. It is estimated that the combined standards will reduce CO_2 emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of vehicles built for the 2014 to 2018 model years, providing $49 billion in net program benefits. The reduced fuel use alone will enable $50 billion in fuel savings to accrue to vehicle owners, or $42 billion in net savings when considering technology costs. A second phase of regulations is planned for model years beyond 2018.

California has also adopted a series of laws to reduce emissions of GHGs into the atmosphere, including:

Executive Order (E.O.) S-3-05. E.O. S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80% below 1990 levels. It calls for the Secretary of the Cal/EPA to be responsible for coordination of State agencies and progress reporting. A recent California Energy Commission report concludes that the primary strategies to achieve this target should be a major "decarbonization" of electricity supplies and fuels, and major improvements in energy efficiency.[79]

In response to the Executive Order, the Secretary of the Cal/EPA created the Climate Action Team (CAT). The CAT currently has members from 18 State agencies and departments, and 10 working groups which coordinate policies among their members. The working groups focus on reducing GHG emissions and facilitating climate change adaptation in the major areas of Agriculture; Biodiversity; Energy; Forestry; Land Use and Infrastructure; Ocean and Coastal; Public Health; Water; State Government, and Research. The CAT is responsible for preparing reports that summarize the State's progress in reducing GHG emissions. The most recent CAT Report was published in December 2010 and discusses mitigation and adaptation strategies, State research programs, policy development, and future efforts.

Assembly Bill 32 (AB 32). The California Global Warming Solutions Act of 2006, also known as AB 32, focuses on reducing GHG emissions in California, and requires CARB to adopt rules and regulations that would achieve a reduction in GHG emissions to a level equivalent to Statewide levels in 1990, by 2020. To achieve this goal, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB 32 is to limit 2020 emissions to the level of 1990 emissions, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. Senate Bill (SB) 1368, a companion bill to AB 32, requires the California Public Utilities

[78]The White House Office of the Press Secretary, President Obama Announces National Fuel Efficiency Policy, May 2009, available at http://www.whitehouse.gov/the_press_office/President-Obama-Announces-National-Fuel-Efficiency-Policy/, accessed February 6, 2012.
[79]California Energy Commission, California's Energy Future – The View to 2050, May 2011.

Commission and the California Energy Commission to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the State.

AB 32 charges CARB with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. On June 1, 2007, CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills.[80] On October 25, 2007, CARB tripled the set of early action measures. The second set of approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing perfluorocarbons from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexaflouride emissions from the non-electricity sector. CARB has determined that the total Statewide aggregated GHG 1990 emissions level and 2020 emissions limit is 427 million metric tons of CO_2e. The 2020 target reductions are currently estimated to be 174 million metric tons of CO_2e.

The CARB AB 32 Scoping Plan contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by CARB with input from the CAT and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the State economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. Key approaches for reducing GHG emissions to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a Statewide renewable electricity standard of 33%
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets, and
- Adopting and implementing measures to reduce transportation sector emissions

CARB has also developed GHG mandatory reporting regulations that require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. The regulation language identifies major facilities as those that generate more than 25,000 metric tons of CO_2 per year. These facilities, which include cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, and hydrogen plants and other stationary combustion sources make up 94% of the point source CO_2 emissions in California.

Senate Bill 375 (SB 375). SB 375 (Steinberg, Chapter 728, Statutes of 2008) provides a means for achieving AB 32 goals through the reduction in emissions from cars and light trucks. SB 375 requires new regional transportation plans (RTPs) to include Sustainable Communities Strategies (SCSs). This legislation also allows the development of an Alternative Planning Strategy (APS) if the targets cannot be feasibly met through an SCS. The APS is not included as part of an RTP.

[80]California Air Resources Board, Proposed Early Action Measures to Mitigate Climate Change in California, April 2007.

Executive Order (E.O.) S-1-07, the Low Carbon Fuel Standard. E.O. S-1-07 requires a reduction of at least 10% in the carbon intensity of California's transportation fuels by 2020. Implementation of the Low Carbon Fuel Standard has been assigned to CARB. The Low Carbon Fuel Standard has been identified by ARB as a discrete early action item in the Adopted *Climate Change Scoping Plan*. CARB expects the Low Carbon Fuel Standard to achieve the minimum 10% reduction goal; however, many of the early action items outlined in the *Climate Change Scoping Plan* work in tandem with one another.

Executive Order S-13-08. Executive Order S-13-08 directs California to develop methods for adapting to climate change impacts through preparation of a Statewide plan. In response to this order, the California Natural Resources Agency coordinated with ten State agencies, multiple scientists, a consulting team, and stakeholders to develop the first Statewide, multi-sector adaptation strategy in the country. The resulting report, *2009 California Climate Adaptation Strategy*, summarizes the best-known science to assess the vulnerability of the State to climate change impacts, and outlines possible solutions that can be implemented within and across State agencies to promote resiliency. This strategy is the first step in an evolving process to reduce California's vulnerability to climate change impacts. Adaptation refers to efforts that prepare the State to respond to the impacts of climate change - adjustments in natural or human systems to actual or expected climate changes to minimize harm or take advantage of beneficial opportunities. California's ability to manage its climate risks through adaptation depends on a number of critical factors. These include its baseline and projected economic resources, technology, infrastructure, institutional support and effective governance, public awareness, access to the best available scientific information, sustainably-managed natural resources, and equity in access to these resources.

Senate Bill 1368 (SB 1368). SB 1368 (Perata, Chapter 598, Statutes of 2006) directs the California Energy Commission and the California Public Utilities Commission to adopt a performance standard for greenhouse gas emissions for the future electricity used in California, regardless of whether it is generated in-State or purchased from other states.

California Air Resources Board (CARB). CARB has developed draft interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the analysis of GHG emissions under CEQA.

South Coast Air Quality Management District (SCAQMD). The SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" in 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy.

In 2008, the SCAQMD Governing Board adopted an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is the lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and has formed a GHG Significance Threshold Working Group

to further evaluate potential GHG significance thresholds[81] and provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups. The working group is currently discussing multiple methodologies for determining project significance. These methodologies include categorical exemptions, consistency with regional GHG budgets in approved plans, a numerical threshold, performance standards, and emissions offsets.

Green LA Action Plan. The goal of the Green LA Action Plan (Plan) is to reduce greenhouse gas emissions 35%t below 1990 levels by 2030[82]. The Plan identifies objectives and actions designed to make the City a leader in confronting global climate change. The measures would reduce emissions directly from municipal facilities and operations, and create a framework to address City-wide GHG emissions. The Plan identifies focus areas for implementation of GHG reduction strategies, including energy, water, transportation, land use, waste, port, and airport, and ensuring that changes to the local climate are incorporated into planning and building decisions.

The City has developed an implementation document, "ClimateLA" that presents the existing GHG inventory for the City, includes enforceable GHG reduction requirements, provides mechanisms to monitor and evaluate progress, and includes mechanisms that allow the plan to be revised in order to meet targets. By 2030, the plan aims to reduce GHG emissions by 35% from 1990 levels, which were estimated to be approximately 54.1 million metric tons.

To achieve these reductions the City has developed strategies that focus on energy, water use, transportation, land use, waste, open space and greening, and economic factors. To reduce emissions from energy usage, ClimateLA includes the following goals: increase the amount of renewable energy provided by the Los Angeles Department of Water and Power; present a comprehensive set of green building policies to guide and support private sector development; reduce energy consumed by City facilities and utilize solar heating where applicable; and help citizens to use less energy. With regard to waste, ClimateLA sets the goal of recycling 70% of trash by 2015. With regard to open space and greening, ClimateLA includes the following goals: create 35 new parks; revitalize the Los Angeles River to create open space opportunities; plant one million trees throughout the City; identify opportunities to "daylight" streams; identify promising locations for stormwater infiltration to recharge groundwater aquifers; and collaborate with schools to create more parks in neighborhoods.

Impact Criteria

The proposed project would have a significant impact related to greenhouse gas emissions if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or

[81]South Coast Air Quality Management District, Greenhouse Gases CEQA Significance Thresholds, http://www.aqmd.gov/ceqa/handbook/GHG/GHG.html.
[82]City of Los Angeles, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, May 2007.

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The State has not determined significance thresholds for evaluating potential impacts on GHG, however, CARB has determined that the total Statewide aggregated GHG 1990 emissions level and 2020 emissions limit is 427 million metric tons of CO_2e per year. This equates to a target emission rate of 9.6 metric tons of CO_2e per capita per year.

Environmental Impact

Greenhouse Gas Emissions

The intent of the proposed ordinance is to reduce the number of single-use plastic carryout bags in trash loads, reduce the environmental impacts related to single-use plastic carryout bags, deter the use of single-use paper carryout bags, and promote the use of reusable carryout bags by retail customers.

As described in the Environmental Setting, the manufacture, transport, and disposal of each single-use paper bag generates 3.3 times more GHG emissions than the manufacture, transport, and disposal of a single-use plastic bag. If only used once, the manufacture, use, and disposal of a reusable LDPE carryout bag results in 2.6 times the GHG emissions of a single-use HDPE plastic bag. Thus, on a per bag basis, single-use plastic carryout bags have less impact than single-use paper carryout bags. However, reusable carryout bags are intended to be used multiple times. With reuse of reusable carryout bags, the total number of carryout bags that would be manufactured, transported and disposed of would be reduced. Under conservative assumptions, the proposed ordinance would result in replacement of single-use plastic bags currently used in the City (approximately 2.03 billion annually) with approximately 609 million recycled-content and recyclable paper bags and approximately 25 million reusable bags; the use of approximately 102 million single-use plastic bags would remain.

Table 3.3-2 provides a conservative "worst case" scenario estimate of GHG emissions for the proposed ordinance project. Under this scenario, although the total number of carryout bags would be substantially reduced by the proposed ordinance, GHG emissions associated with the manufacturing, transport, and disposal of carryout bags would increase by 31,620 metric tons of CO_2e per year compared to existing conditions, primarily because of the increase in the use of single-use paper bags. The GHG emissions associated with the manufacturing, transportation and disposal of carryout bags used in the City would be approximately 85,786 metric tons of CO_2e per year. This represents approximately 0.00019% of California's Statewide GHG inventory of 457 million metric tons of CO_2e per year. The per capita increase of 0.008 CO_2e per person would be less than the State target emission rate of 9.6 metric tons of CO_2e per capita. Therefore, under this "worst case" scenario, the proposed ordinance would result in a less than significant impact related to GHG emissions.

Table 3.3-2
Estimated Greenhouse Gas Emissions from Carryout Bags

Bag Type	Number of Bags Used per Year	GHG Impact Rate per Bag	CO_2e Emissions (metric tons)	CO_2e per Year (metric tons)	CO_2e per Person /c/ (metric tons)
Single-Use Plastic	101,561,635	1.0	0.04 per 1,500 bags /a/	2,708	0.0008
Single-Use Paper	609,369,812	3.3	0.132 per 1,000 bags /b/	80,437	0.021
Reusable	25,390,409	2.6	0.104 per 1,000 bags /b/	2,641	0.0007
			Total	**85,786**	**0.022**
			Existing	**54,166**	**0.014**
			Net Change	**31,620**	**0.008**

/a/ Based on Boustead Report, 2007.
/b/ Based on AEA Technology Scottish Report, 2005.
/c/ Based on the 2012 City population of 3,825,297 residents.

However, the preliminary data submitted by stores during the first three quarters of the year following the implementation of the Los Angeles County's ordinance - which banned single-use plastic carryout bags and imposed a $0.10 charge on paper carryout bags, shows a significant overall reduction of 34% in paper carryout bag usage within Los Angeles County between 2009 and 2012, including a substantial nearly 13% reduction occurring within the first three quarters of the year following the implementation of the ordinance[83]. The data indicate that the use of paper carryout bags in large stores not only did not temporarily increase as a result of a ban of single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance. As with the County of Los Angeles, a similar effect is anticipated to occur within the City of Los Angeles. Therefore, it is anticipated that as a result of the proposed ordinance, within one year, GHG emissions associated with the manufacturing, transportation and disposal of carryout bags used in the City would be approximately 74,525 metric tons of CO_2e per year. This represents the per capita increase of approximately 0.005 CO_2e per person (a reduction of over 37% in comparison with the "worst case" scenario), which would be less than the State target emission rate of 9.6 metric tons of CO_2e per capita. Therefore, the project impact would be less than significant.

Consistency with Adopted Plans, Policies, and Regulations

The CAT Report identifies a recommended list of strategies that the State could pursue to reduce GHG emissions and meet the goals of the Executive Order S-3-05. These are strategies that could be implemented by various State agencies to ensure that the Governor's targets are met and can be met with the existing authority of the State agencies. In addition, in 2008 the California Attorney General published *The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level*. This document provides information that may be

[83] County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag

helpful to local agencies in carrying out their duties under CEQA as they relate to global warming. Included in this document are various measures that may reduce the global warming related impacts of a project**.** Tables 3.3-3 illustrates that the proposed ordinance would be consistent with both the GHG reduction strategies set forth by the 2006 CAT Report.

Table 3.3-3
Proposed Ordinance Consistency with Applicable Climate Change Action Team Greenhouse Gas Emissions Reduction Strategies

Strategy	Project Consistency
Vehicle Climate Change Standards AB 1493 (Pavley, Chapter 200, Statutes of 2002) requires the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks.	**Consistent** The trucks that deliver carryout bags to and from manufacturers, distribution centers, and stores within the City on public roadways would be in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Diesel Anti-Idling CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (§2485) limits diesel-fueled commercial motor vehicle idling. .	**Consistent** Current State law restricts diesel truck idling to five minutes or less. Diesel trucks operating from and making deliveries to the City are subject to this law.
Alternative Fuels: Biodiesel Blends Require the use of 1% to 4% biodiesel displacement of California diesel fuel.	**Consistent** The diesel vehicles that deliver carryout bags to and from manufacturers, distribution centers, and stores within the City on public roadways could utilize this fuel once it is commercially available.
Alternative Fuels: Ethanol Increased use of E-85 fuel.	**Consistent** Truck drivers delivering carryout bags could choose to purchase flex-fuel vehicles and utilize this fuel once it is commercially available regionally and locally.
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy duty vehicles and an education program for the heavy-duty vehicle sector.	**Consistent** The heavy-duty trucks that deliver carryout bags to and from manufacturers, distribution centers, and stores within the City on public roadways would be subject to all applicable CARB efficiency standards that are in effect at the time of vehicle manufacture.
Achieve 50% Statewide Recycling Goal Achieving the State's 50% waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills.	**Consistent** The City has completed a comprehensive waste reduction and recycling plan in compliance with State Law AB 939, which requires every city in California to reduce the waste it sends to landfills by 50% by the year 2000. The City has adopted a plan to achieve a 75% reduction by the year 2013. Any disposal of carryout bags would be required to adhere to the existing standards.

Table 3.3-3
Proposed Ordinance Consistency with Applicable Climate Change Action Team Greenhouse Gas Emissions Reduction Strategies

Strategy	Project Consistency
Fuel-Efficient Replacement Tires & Inflation Programs State legislation established a Statewide program to encourage the production and use of more efficient tires.	**Consistent** Carryout bag delivery drivers could purchase tires for their vehicles that comply with state programs for increased fuel efficiency.
Alternative Fuels: Non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the California Energy Commission's 2003 and 2005 Integrated Energy Policy Reports.	**Consistent** Carryout bag delivery drivers could purchase alternative fuel vehicles and utilize these fuels once they are commercially available regionally and locally.

The proposed ordinance is also consistent with the 2008 Attorney General's Greenhouse Gas Reduction Measures diesel anti-idling limits which set specific limits on idling time for commercial vehicles, including delivery vehicles.. The CARB's Airborne Toxic Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling restricts diesel truck idling to five minutes or less. Diesel trucks delivering carryout bags to and from manufacturers, distribution centers, and stores within the City are subject to this State law. Therefore, the proposed ordinance would not conflict with the adopted plans, policies, and regulations.

Mitigation Measures

Impacts related to GHG emissions would be less than significant. No mitigation measures are required.

Level of Impact after Mitigation

Impacts related to GHG emissions would be less than significant. No mitigation measures are required.

Cumulative Impact

Adopted and pending carryout bag ordinances of more than 50 other jurisdictions within California would continue to reduce the amount of single-use plastic and paper carryout bags and promote a shift toward reusable carryout bags. Similar to the proposed ordinance, such ordinances would be expected to generally reduce the overall number of manufactured, transported and disposed of single-use carryout bags. Based on the incremental increase in per capita emissions, those ordinances are not expected to generate a significant cumulative increase in GHG emissions. Therefore, the proposed ordinance would not result in cumulative impacts or contribute to a cumulatively considerable impact from GHG emissions to the environment.

3.4 Forest Resources

This section examines the potential impact on forest resources associated with the adoption and implementation of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance.

Environmental Setting

The City of Los Angeles is the largest city in California, and with a population of 3.8 million residents, it is the second largest urban area in the nation. No natural or commercially-grown forests are located within the City. No commercially-grown forests are located in the vicinity of the City and the only remaining substantial natural forests are located outside the City's boundaries, within the Angeles National Forest (Angeles Forest) and on the north slope of the Santa Susana Mountains (mostly within the Santa Clarita Woodlands Park).

Impact Criteria

Impact is considered significant if the proposed project would:

- Result in the loss of forest land or conversion of forest land to non-forest use, and/or involve other changes in the existing environment which, due to their location or nature, could result in the conversion of forest land to non-forest use.

Environmental Impact

Paper bags generally consist of both virgin and recycled materials. Virgin material used in the manufacture of kraft paper (brown paper grocery bags are usually made of kraft paper) is typically pulp chips made from trees. According to statements made by representatives of the American Forest & Paper Association[84], most of the trees used to manufacture paper are grown for that purpose by the lumber industry in commercially grown forests, and billions of acres of the world's forests and approximately 70% of the US forested lands are working commercial forests[85]. Recycled paper is used widely in the manufacturing of paper bags and currently, there are paper bags on the market that contain 100% recycled content.

Under a conservative scenario, the implementation of the proposed ordinance may result in an initial temporary replacement of some single-use plastic carryout bags with paper bags, which are manufactured of wood pulp and recycled materials. However, the preliminary data submitted by stores following the implementation of the Los Angeles County's ordinance - which banned single-use plastic carryout bags and imposed a $0.10 charge on paper carryout bags, shows a

[84] Single-Use Carryout Bag Ordinance Draft EIR, City of San Jose, July 2010.
[85] American Forest & Paper Association, 2012; http://www.afandpa.org/ourindustry.aspx?id=35.

significant overall reduction of 34% in paper carryout bag usage within the Los Angeles County between 2009 and 2012, including a nearly 13% reduction within the first three quarters of the year after the enactment of the ordinance[86]. The data indicate that the use of paper carryout bags in large stores not only did not temporarily increase as a result of a ban of single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance. As with the County of Los Angeles, a similar effect is anticipated to occur within the City of Los Angeles. Overall, trees cut down for virgin material to manufacture the paper carryout bags are those trees that are commercially grown for paper manufacturing. Any fluctuations in demand for paper carryout bags in the City of Los Angeles might cause those trees to be harvested sooner or later than they would otherwise have been, but no trees would be cut down that would not otherwise have been cut down for paper manufacturing. As there are no forests within the City of Los Angeles, no impact on forest resources would occur within the City.

The proposed ordinance requires single-use paper carryout bags to have no less than 40% recycled content (and currently, there are paper bags on the market that contain 100% recycled content), which would reduce the loss of trees as a result of any fluctuations in demand for single-use paper bags in City of Los Angeles. The City's proposed ordinance is intended to deter the use of single-use paper carryout bags by instituting a point of sale fee for each single-use paper carryout bag, and encourage the use of reusable carryout bags that can be used multiple times, and not once or twice and then discarded.

Since the majority of paper carryout bags supplied to the greater Los Angeles metropolitan area are produced in and delivered from states outside of California and from countries outside of the United States, including Canada, a detailed analysis of a potential impact to forest resources around the world is too speculative and would be unreasonably burdensome. Specifically, the location and type of forest (certified sustainable, plantations, reforested, etc.) and the specific amount of wood fiber procured from trees that could be attributed to the project is too speculative to evaluate. The CEQA Guidelines state, "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible" and Section 15145 of the CEQA Guidelines states, "If, after a thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

Mitigation Measures

The proposed project would not result in a significant impact to forest resources. Therefore, no mitigation is required.

Level of Impact after Mitigation

The proposed project would not result in a significant impact to forest resources. Therefore, no mitigation is required.

[86] County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag

Cumulative Impact

Adopted and pending carryout bag ordinances would generally have neutral effects with respect to forest resources because each ordinance is intended to reduce the amount of single-use plastic bags in each respective jurisdiction and deter the use of paper carryout bags. In addition, each ordinance is reviewed by the local jurisdiction with discretionary approval authority of the ordinance and undergoes environmental review as deemed appropriate. Potential significant impacts to forest resources would be minimized through this review process, which requires mitigation to reduce significant impacts to the greatest extent feasible. The forest impacts associated with the proposed City of Los Angeles Single-Use Carryout Bag Ordinance would not be significant and would not contribute to any significant cumulative impact to forest lands.

3.5 Hazards and Hazardous Materials

This section examines whether the implementation of the proposed Single-Use Carryout Bag ordinance would expose people to significant adverse effects related to hazardous materials within the City of Los Angeles compared to existing conditions.

Environmental Setting

Manufacturing, transport, disposal, and use of hazardous materials are extensively regulated by a comprehensive array of federal, state, and local regulations and overseen by numerous regulatory and other agencies, as follows.

Regulatory Framework

Federal

Primary federal agencies with responsibility for hazardous materials management include the US Environmental Protection Agency (USEPA), Department of Labor, Federal Occupational Safetyand Health Administration (OSHA), and United States Department of Transportation (USDOT).

Clean Water Act. Congress passed the Clean Water Act (CWA) in 1972, which authorized the USEPA to set federal water quality regulations. The CWA requires each state to develop Total Maximum Daily Load (TMDL) levels for all pollutant-impaired waters. Each state must:

- Identify water bodies that are water quality limited. These water bodies are then placed on the State's "303(d) List" (CWA Section 303 (d)(1) requires each state to identify the waters within its boundaries that do not meet water quality standards).
- Prioritize and target water bodies for TMDL's
- Develop TMDL plans to attain and maintain water quality standards for all water quality limited waters

The TMDL is a number that represents the assimilative capacity of a receiving water (such as a river or creek) to absorb a pollutant. The TMDL is the sum of the wasteload allocations for point sources (specific physical sources, such as a pollution outflow pipe) and nonpoint sources (broad area sources, such as a plowed field or mining waste heap), plus an allotment for natural background sources of pollutants, and a margin of safety. TMDLs can be expressed in terms of mass per time (the traditional approach), or in other ways, such as a percentage reduction or other appropriate measure relating to a state water quality objective. A TMDL is implemented by

reallocating the total allowable pollution among the different pollutant sources (through the permitting process or other regulatory means) to ensure that the water quality objectives are achieved.

In short, a TMDL establishes a maximum limit for a specific pollutant that can be discharged into a water body without causing it to become impaired. A given water body may have more than one pollutant that will require the establishment of a TMDL.

TMDLs are enforced through State and Federal discharge permits issued to cities, such as the Municipal Stormwater National Pollutant Discharge Elimination System (NPDES) permit and Publicly Owned Treatment Works (POTWs) permit. Violation of these permits can result in exposure to both civil and criminal liabilities. Upon establishment of TMDLs by the State or US EPA, the State is required to incorporate the TMDLs into the State Water Quality Management Plan.

In California, TMDLs are prepared by the Regional Water Quality Control Boards and adopted by the State Water Resources Control Board as part of each region's Basin Plan. TMDLs are adopted to regulate a variety of pollutants (e.g., bacteria, sediment, heavy metals, pesticides and other toxic pollutants, and nutrients), including trash.

Resource Conservation and Recovery Act (RCRA). RCRA gives the USEPA the authority to control hazardous waste from "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste by "large-quantity generators" (1,000 kilograms/month or more). Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed at a facility, any treatment, storage, or disposal unit must be permitted under RCRA. Additionally, all hazardous waste transporters are required to be permitted and must have an identification number. RCRA allows individual states to develop their own program for the regulation of hazardous waste as long as it is at least as stringent as RCRA. The USEPA has delegated RCRA enforcement to the State of California.

Occupational Safety and Health Act. The Occupational Safety and Health Act, which is implemented by the Federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. Federal OSHA requirements, as set forth in Title 29 of the Code of Federal Regulations (CFR) Section 1910, et. seq., are designed to promote worker safety, worker training, and a worker's right–to-know. OSHA has delegated the authority to administer OSHA regulations to the State of California.

Title 49 of the CFR - which contains the regulations set forth by the Hazardous Materials Transportation Act - specifies additional requirements and regulations with respect to the transport of hazardous materials. Title 49 of the CFR requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazardous materials requirements. Drivers are also required to be trained in function and commodity specific requirements.

State

Primary State agencies with jurisdiction over hazardous chemical materials management are the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB). Other State agencies involved in hazardous materials management are California

Occupational Safety and Health Administration (Cal/OSHA), the Department of Industrial Relations (State OSHA implementation), State Office of Emergency Services (OES—California Accidental Release Prevention implementation), California Department of Fish Game (CDFG), California Air Resources Board (CARB), California Highway Patrol (CHP), State Office of Environmental Health Hazard Assessment (OEHHA—Proposition 65 implementation) and the Department of Resources Recycling and Recovery (CalRecycle).

Authority for the statewide administration and enforcement of RCRA rests with the California EPA's (Cal-EPA) Department of Toxic Substances Control (DTSC). While DTSC has primary State responsibility in regulating the generation, storage and disposal of hazardous materials, DTSC may further delegate enforcement authority to local jurisdictions. In addition, DTSC is responsible for and/or provides oversight for contamination cleanup, and administers State-wide hazardous waste reduction programs. DTSC operates programs to accomplish the following: (1) deal with the aftermath of improper hazardous waste management by overseeing site cleanups; (2) prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly; and (3) evaluate soil, water, and air samples taken at sites.

Cal/OSHA is administered and enforced by the Division of Occupational Safety and Health (DOSH). Cal-OSHA is very similar to the Federal OSHA program. For example, both programs contain rules and procedures related to exposure to hazardous materials during demolition and construction activities. In addition, Cal-OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP). An IIPP is an employee safety program for potential workplace hazards, including those associated with hazardous materials.

SB 1219. Senate Bill 1219 (Chapter 384, Statutes of 2012) repealed the provisions preempting local regulatory action contained in the previous Assembly Bill 2449, while extending the recycling requirements of AB 2449 until January 1, 2020. AB 2449, which expired on January 1, 2013, restricted the ability of cities and counties to regulate single-use plastic grocery bags through the imposition of a fee on plastic bags.

Certified Unified Program Agency. The primary local agency, known as the Certified Unified Program Agency (CUPA), with responsibility for implementing federal and State laws and regulations pertaining to hazardous materials management is the Los Angeles County Health Department, Environmental Health Division. The Unified Program is the consolidation of six state environmental regulatory programs into one program under the authority of a CUPA. A CUPA is a local agency that has been certified by Cal/EPA to implement the six state environmental programs within the local agency's jurisdiction. The six consolidated programs are:

- Hazardous Materials Release Response Plan and Inventory (Business Plans)
- California Accidental Release Prevention (CalARP)
- Hazardous Waste (including Tiered Permitting)
- Underground Storage Tanks (USTs)
- Above Ground Storage Tanks (Spill Prevention Control and Countermeasures (SPCC) requirements)
- Uniform Fire Code (UFC) Article 80 Hazardous Material Management Program (HMMP) and Hazardous Material Identification System (HMIS)

As the CUPA for the County of Los Angeles, the Los Angeles County Health Department, Environmental Health Division maintains the records regarding location and status of hazardous

materials sites in the county and administers programs that regulate and enforce the transport, use, storage, manufacturing, and remediation of hazardous materials. By designating a CUPA, Los Angeles County has accurate and adequate information to plan for emergencies and/or disasters and to plan for public and firefighter safety.

City of Los Angeles Fire Department (LAFD). A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. The LAFD is a PA with the Los Angeles County Health Department, Environmental Health Division as the CUPA. The LAFD administers hazardous materials environmental compliance programs within City jurisdiction. These programs include a hazardous materials disclosure and business plan, UST program, aboveground storage tank (AST) spill prevention control and countermeasure, hazardous waste generator program (administered by LAFD), and the California Accidental Release Prevention Program.

The LAFD monitors the storage of hazardous materials in the City for compliance with local requirements. Specifically, businesses and facilities which store more than threshold quantities of hazardous materials, as defined in Chapter 6.95 of the California Health and Safety Code, are required to file an Accidental Risk Prevention Program with the LAFD. This program includes information such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations.

Existing Conditions

The issues concerning hazardous materials and the regulation of single-use plastic and paper carryout bags, and reusable bags have revolved around their manufacturing process[87]. Although hazardous materials may be used in the process of manufacturing single-use plastic, single-use paper, and reusable carryout bags, there are no such bag manufacturing facilities within the City of Los Angeles. Most importantly however, any existing or potential future facilities that manufacture bags, regardless of their locations, would be required to comply with the California Health and Safety Code Section 25531-25543.3, that established a program for the prevention of accidental releases of regulated hazardous substances.

Presently, more than 2 billion single-use plastic bags, millions of single-use paper bags, and reusable bags are consumed in the City of Los Angeles. The intent of the proposed ordinance is to reduce the amount of single-use plastic and paper carryout bags consumed and to promote a major shift towards reusable carryout bags by retail customers in the City. Neither the current conditions nor the proposed ordinance involves the routine transport, use, or disposal of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act.[88] Once manufactured, the finished single-use plastic and paper carryout bags and reusable carryout bags do not meet the criteria of a hazardous waste, because they do not possess at least one of the four characteristics of hazardous wastes - ignitability, corrosivity, reactivity, or toxicity. These bags do not appear on any of the special USEPA lists[89], and are not considered to be hazardous material.

[87] The manufacturing process is addressed in detail in the Master Environmental Assessment on Single-Use and Reusable Bags, Green Cities California, March 2010, and addressed in numerous EIRs prepared by other California urisdictions for similar single-use plastic carryout ordinances, including those of the Cities of San Francisco, San Jose, and Ukiah.

[88] Code of Federal Regulations, Title 40, Chapter 1, Parts 106–180.

[89] Code of Federal Regulations, Title 40, Chapter 1, Part 261: "Identification and Listing of Hazardous Waste."

Impact Criteria

The proposed project would have a significant impact related to hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

Environmental Impact

The proposed ordinance is expected to eliminate approximately 95% of the over two billion single-use plastic carryout bags which are currently used per year within the City of Los Angeles. With the implementation of the proposed ordinance, under conservative assumptions approximately 5% of the existing single-use plastic carryout bag usage would continue, about 30% of the single-use plastic carryout bags would be replaced with paper carryout bags containing at least 40% post-consumer content; and the remaining 65% would be replaced with reusable bags.

According to the County of Los Angeles data collected after the first year of implementing the County's Single-Use Bag Ordinance, from quarter to quarter paper bag usage continues to decline, with a 34% percent overall reduction between 2009 and the first quarter of 2012, with a 13% reduction occurring within the first three quarters of the enactment of the ordinance[90]. Based on these data, the proposed ordinance may result in an initial increase of approximately 530 million single-use paper bags, with this number decreasing over time. The proposed ordinance would require single-use paper bags to contain no less than 40% post-consumer recycled content. Since recycled content reduces chemical use in manufacturing paper compared to virgin content, this requirement would result in a proportionally smaller incremental increase in the use of toxic chemicals associated with paper bag manufacture than the overall percentage of the increased use of paper bags. Furthermore, brown kraft paper bags (the type most commonly used in shopping bags) do not require the use of chlorine or other bleaching agents, and recycled paper does not require the powerful chemicals used to break up wood fiber (lignins) in virgin feedstock.

As discussed previously, neither the single-use paper bags nor the reusable bags are considered hazardous materials because they do not possess at least one of the four characteristics of hazardous wastes - ignitability, corrosivity, reactivity, or toxicity, and do not appear on special U.S. Environmental Protection Agency lists[91] Therefore, the proposed ordinance would not involve the routine transport, use, or disposal of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act[92].

The plastic bag industry has raised the issue of hygiene associated with reusable bags, arguing that using reusable bags for bagging food creates a potential for cross-contamination and exchange of bacteria, especially when raw meat is involved, and that this may lead to the growth of mold or harbor bacteria which in turn, may come in contact with other foods.

[90] County of Los Angeles, About the Bag, Announcements: September 2012. http://dpw.lacounty.gov/epd/aboutthebag/index.cfm

[91] Code of Federal Regulations, Title 40, Chapter 1, Part 261: "Identification and Listing of Hazardous Waste".

[92] Code of Federal Regulations, Title 40, Chapter 1, Parts 106–180.

In 2009, the Environment and Plastics Industry Council (EPIC), a standing committee of the Canadian Plastics Industry Association, examined the cleanliness of reusable bags in Canada.[93] The study involved 25 used reusable bags and 4 control bags (three unused reusable bags and one unused single-use plastic bag) analyzed in two series of testing. The first series included 1 used reusable bag and 1 unused reusable bag as a control. The second series tested 24 used reusable bags and 3 control bags (two unused reusable bags and one unused single-use plastic bag). The reusable plastic bags tested ranged in age from one month to three years. The plastic bags in this study were tested for "total plate count" (i.e., all readily grown, but not necessarily harmful, aerobic bacteria), total coliforms, E. coli, Salmonella, mold, and yeast. The unused control bags showed no evidence of bacteria, mold, yeast or total coliforms.[94] Out of the 25 used reusable bags tested, 16 showed the presence of some level of bacteria (i.e., readily grown, but not necessarily harmful, aerobic bacteria), 5 contained yeast, and 6 contained mold. The study said that an unacceptable total coliform count was found in 3 of the reusable bags, indicating the possible presence of intestinal bacteria. Most of the bags containing unacceptable total coliform count were in the bags that had been used for one to three years. Of these three bags, one had been exposed to a meat spill and had never been washed, and all three had been in use for at least one to three years. No E. coli or Salmonella bacteria were detected in any of the bags in the study.

A study funded by the American Chemistry Council in 2010 made similar findings.[95] Eighty-four reusable bags were collected from shoppers in three cities and all were found to contain bacteria. The study found that bacteria could be eliminated by ordinary washing, but that 97% of the shoppers said they had never washed their bags. The authors of the study deliberately spilled meat juices on a bag and then placed it inside a hot car truck for two hours to show accelerated bacteria growth. The study found bacteria and coliforms in most of the bags and E.coli in 12% of the bags. The likely source of the contamination was thought to be raw meat and/or other raw food. The study warned of the danger of allowing raw meat or meat juices to contact food traditionally eaten raw (such as fruits and vegetables). Since most people put produce into separate plastic bags that are not regulated by this proposed ordinance and most supermarkets and grocery stores also put raw meat into plastic packages and/or into a secondary plastic bag as well, this problem is not likely to arise or be significant. This study also evaluated the benefit of machine or hand washing the reusable bags and found bacteria levels were almost entirely eliminated when washed.

Also, a study was conducted to identify the quantities of bacteria on everyday household surfaces and items and published in the *Journal of Applied Microbiology*. The study evaluated the presence of bacteria in ten kitchens in the United States[96]. The study tested sink basins, faucet handles, table tops, counter tops, refrigerator doors, oven controls, cutting boards, and sponges. The first scenario analyzed in the study tested surfaces in each household that were maintained and cleaned in a normal fashion, but without the use of a disinfectant. Of the samples, 99% tested positive for some level of bacteria and 46% showed the presence of some amount of total coliforms. The second scenario tested surfaces that were maintained and cleaned in a normal

[93]San Jose DEIR citing Sporometrics. Grocery Carry Bag Sanitation: A Microbiological Study of Reusable Bags and "First or Single-Use" Plastic Bags. 2009.

[94]Coliforms are defined as rod-shaped gram-negative non-spore forming organisms. Coliforms are abundant in the feces of warm-blooded animals, and are also be found in the aquatic environment, in soil and on vegetation. Coliforms are easy to culture and their presence is used to indicate that other pathogenic organisms of fecal origin *may* be present.

[95]City of San Jose Single-Use Carryout Plastic Bag Ordinance Draft EIR, citing Charles P. Gerba, David Williams and Ryan G. Sinclair**,** "Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags," http://uanews.org/pdfs/GerbaWilliamsSinclair_BagContamination

[96]San Jose DEIR citing Josephson, K.L., Rubino, J.R., Pepper, I.L. "Characterization and quantification of bacterial pathogens and indicator organisms in household kitchens with and without the use of a disinfectant cleaner". *Journal of Applied Microbiology*, Vol. 83 No.6, pp.737-50. 1997.

fashion with "casual use" of a disinfectant. Of the samples, 95% showed the presence of some level of bacteria and 87% showed the presence of total coliforms.

The studies demonstrated that people are routinely exposed to bacteria and other microbiological contaminants. The results of the reusable bag studies showed that reusable bags were substantially lower in the quantities of such contaminants than surfaces and objects commonly found in the home, including kitchen surfaces where food is kept and prepared. Although levels of microbiological contamination may occur in reusable bags, proper cleaning of the bags, as with any other object that may come in contact with grocery products, would further reduce the potential for exposure of any food items to harmful bacteria.

The proposed ordinance would not ban plastic or paper bags that are used by customers and the store to protect or contain meat or prepared food; or used for bagging fruits, vegetables, and other fresh produce; or for other goods that must be protected from moisture, damage or contamination, and which are typically placed inside a carryout bag at the point of sale. Thus, the routine use of reusable bags as they are most commonly used, to carry packaged groceries and other purchases home from a store, would not expose users to unusual or excessive levels of harmful bacteria or other microbiological contaminants. Also, as with any other household items, washing the bags when they become soiled would further reduce the likelihood of such exposure. Therefore, impacts would be less than significant.

Representatives of plastic bag manufacturers have also raised the issue of the degree to which paper bags attract and house cockroaches, as cockroaches can spread infectious diseases and their droppings can trigger asthmatic attacks. According to information provided by a number of sources, including the City of New York Health Department, the University of Connecticut, and the University of Nebraska, cockroaches will eat virtually any organic substance. This includes human food, grease, paper, pet food, garbage, the glue on can labels, and the detritus found on dirty clothes. Cockroaches are attracted to any location where there is food and moisture, and will live in the walls, cupboards, furniture, in piles of dirty laundry, under appliances, in garbage cans and recycling containers, within the seals on refrigerator doors, and in any pile of paper or cardboard, including paper bags and magazines. They can enter a home in boxes, bags, soft drink cartons, televisions, radios, used appliances and furniture, or they travel through tiny cracks in the walls or along plumbing. Different species of cockroaches will live in kitchens, bathrooms, bedrooms, and basements. All of the advice provided for getting rid of cockroaches includes not allowing piles of cardboard or paper (including paper bags) to accumulate and putting all garbage and recycling in containers with tight fitting lids[97]. While the implementation of the proposed ordinance may replace some of the plastic carryout bags currently used in the City with single-use paper bags, according to data collected by the County of Los Angeles after the first year of the County's Single-Use Bag Ordinance, approximately 125,000 paper bags were provided per large store compared to approximately 2.2 million plastic bags and 196,000 single-use paper bags provided per store annually prior to the ordinance going into effect in the third quarter of 2011. Single-use paper carryout bag usage continues to decline with an overall reduction of 34% between 2009 and the first quarter of 2012, including a nearly 13% reduction occurring within the

[97]San Jose DEIR, citing Environmental Health Watch. "Cockroach Control Guide". 2010. <http://www.ehw.org/Asthma/ASTH_Cockroach_Control.htm> ; Environmental Health Watch. "Cockroach Control Guide". 2010. <http://www.ehw.org/Asthma/ASTH_Cockroach_Control.htm>; University of Connecticut Integrated Pest Management. "Integrated Pest Management for Cockroaches". <http://www.hort.uconn.edu/ipm/homegrnd/htms/roach.htm>; New York City Department of Health and Mental Hygiene. "Cockroach". 2010. <http://www.nyc.gov/html/doh/html/ehs/ehscroach.shtml>; and Barb Ogg, Ph.D., and Clyde Ogg. "Least Toxic Cockroach Control". http://lancaster.unl.edu/enviro/pest/factsheets/120-94.htm.

first three quarters of the year following the enactment of the ordinance[98]. The data indicate that the use of paper carryout bags in large stores not only did not temporarily increase as a result of a ban of single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance. As with the County of Los Angeles, a similar effect is anticipated to occur within the City of Los Angeles and there is no reason to believe that the proposed ordinance would cause accumulations of piles of cardboard or paper (including paper bags). Also, paper bags are accepted in the City of Los Angeles' curbside recycling program. Moreover, the existence of paper bags is only one of several of attractive havens that can harbor roaches (including walls, attics, old furniture, old appliances, cardboard boxes, old books and magazines, etc.), none of which would be affected by the proposed ordinance. Impact would therefore be less than significant.

Mitigation Measures

Impacts related to hazards and hazardous materials would be less than significant. No mitigation measures are required.

Level of Impact after Mitigation

Impacts related to hazards and hazardous materials would be less than significant. No mitigation measures are required.

Cumulative Impact

As discussed above, the proposed ordinance would require paper bags to contain 40% post-consumer content which reduces chemical use in manufacturing paper compared to virgin content. The proposed ordinance would also not increase exposure to bacteria over that which is typically found in a kitchen, and there is no reason to believe the proposed ordinance would result in accumulations of paper bags which could harbor cockroaches. Since the proposed ordinance does not involve the routine transport, use, or disposal of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act[99], it would not contribute to such cumulative impact, and hygiene-related hazards associated with reusable bags and paper bags would not be cumulatively considerable.

[98]County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag
[99]Code of Federal Regulations, Title 40, Chapter 1, Parts 106–180.

3.6 Hydrology and Water Quality

This section provides an overview of hydrology and water quality conditions in the City of Los Angeles and evaluates impacts associated with implementation of the proposed ordinance.

Environmental Setting

Surface Waters

The Los Angeles Regional Water Quality Control Board (LARWQCB) divides surface waters into (from largest to smallest) hydrologic units, areas, and subareas, and groundwater into major groundwater basins. Parts of the City are located within all four of the major watersheds that make up the Los Angeles-San Gabriel Hydrologic Unit: Ballona Creek, Dominguez Channel, Los Angeles River, and Santa Monica Bay (Figure 3.6-1). The Los Angeles-San Gabriel Hydrologic Unit covers most of Los Angeles County and small areas of southeastern Ventura County, with the drainage area comprising approximately 1,608 square miles. The Los Angeles-San Gabriel Hydrologic Unit is highly urbanized and much of the area is covered with semi-permeable or non-permeable material, i.e., paving. The Los Angeles River, San Gabriel River, and Ballona Creek, which are the major drainage systems in the City, drain the four watersheds of the Transverse Mountain Ranges into the Pacific Ocean. Therefore, trash in the City's creeks and rivers can ultimately end up in the Pacific Ocean.

Surface Water Quality

The Basin Plan developed by the LARWQCB, outlines conservation practices for the enhancement of water resources, and lists beneficial uses for inland surface waters, harbors, and groundwater basins. The Basin Plan designates beneficial uses for surface water and groundwater, sets narrative and numerical water quality objectives that must be attained (or maintained) to protect designated beneficial uses, and describes implementation programs to protect all waters in the region. According to the Basin Plan, uncontrolled pollutants from non-point sources are believed to be the greatest threats to rivers and streams within the LARWQCB region[100].

The LARWQCB requires all cities and counties within the region to develop and implement comprehensive urban runoff control programs that both remediate existing problems, and prevent future water quality problems. The City's Water Quality Compliance Master Plan for Urban Runoff which includes strategies and programs intended to improve water quality in the City and meet existing surface water quality regulations. According to the

[100]Los Angeles Regional Water Quality Control Board, Water Quality Control Plan: Los Angeles Region, 1994.

Figure 3.6-1
Major Watersheds

Plan, many of the surface water bodies in the LARWQCB region do not meet water quality goals for algae, bacteria, chloride, debris, metals, nutrients, oil and grease, salts, trash, and toxic organic compounds. Ballona Creek, the Los Angeles River, and the San Gabriel River watersheds contain pollutants typical of urban runoff, such as trash, metals, coliform bacteria, oil and grease, nutrients, and toxic organic compounds, such as pesticides and herbicides (a list of impaired waters in the City is provided in Appendices D and E of the Greater Los Angeles County Integrated Regional Water Management Plan). The most effective way to reduce the level of contamination from surface runoff is through the control of pollutants prior to their discharge to the drainage system.

Single-use plastic carryout bags can affect water quality both as a result of litter from discarded, post-consumer bags, and from chemical emissions released during their manufacturing. The most common way that these bags affect water quality is by becoming litter since, due to their light weight and the difficulty of recycling plastic bags, a large percentage of single-use plastic carryout bags end up as litter [101]. When litter enters the storm drain system, it is capable of clogging storm drains or being transported into the local watershed and coastal habitat, violating waste discharge requirements. Additionally, the manufacturing of single-use plastic carryout bags, which utilizes preproduction plastic, may also degrade water quality if released either directly into a surface water body or indirectly through stormwater runoff.

[101] Green Cities California, Master Environmental Assessment on Single-Use and Reusable Bags, 2010.

Fewer single-use paper carryout become litter than single-use plastic carryout bags due to their weight and recyclability; however, water quality may be degraded as a result of the chemicals and materials used in their manufacturing process, including fertilizers, pesticides and other chemicals used in the production of raw materials (such as pulp) discharged into water bodies, either directly or indirectly through stormwater runoff, may increase the potential for higher than natural concentrations of trace metals, biodegradable wastes, and excessive major nutrients such as nitrogen and phosphorus.

Reusable bags are less likely to become litter compared to single-use plastic and paper carryout bags because of their weight and sturdiness[102]. However, similar to single-use paper carryout bags, if chemicals and materials used in manufacturing process are released, either directly into a stream or indirectly via stormwater runoff, they could degrade water quality in local water bodies.

Groundwater

The Coastal Plain of the Los Angeles Groundwater Basin underlies most of the City's territory, and is comprised of the West Coast Basin, the Central Basin, the Santa Monica Basin, and the Hollywood Basin (see Figure 3.6-2). Groundwater accounts for most of the region's local (i.e., non-imported) supply of fresh water; however, groundwater from the Coastal Plain of Los Angeles Groundwater Basin is not used as a substantial source of fresh water for the region.

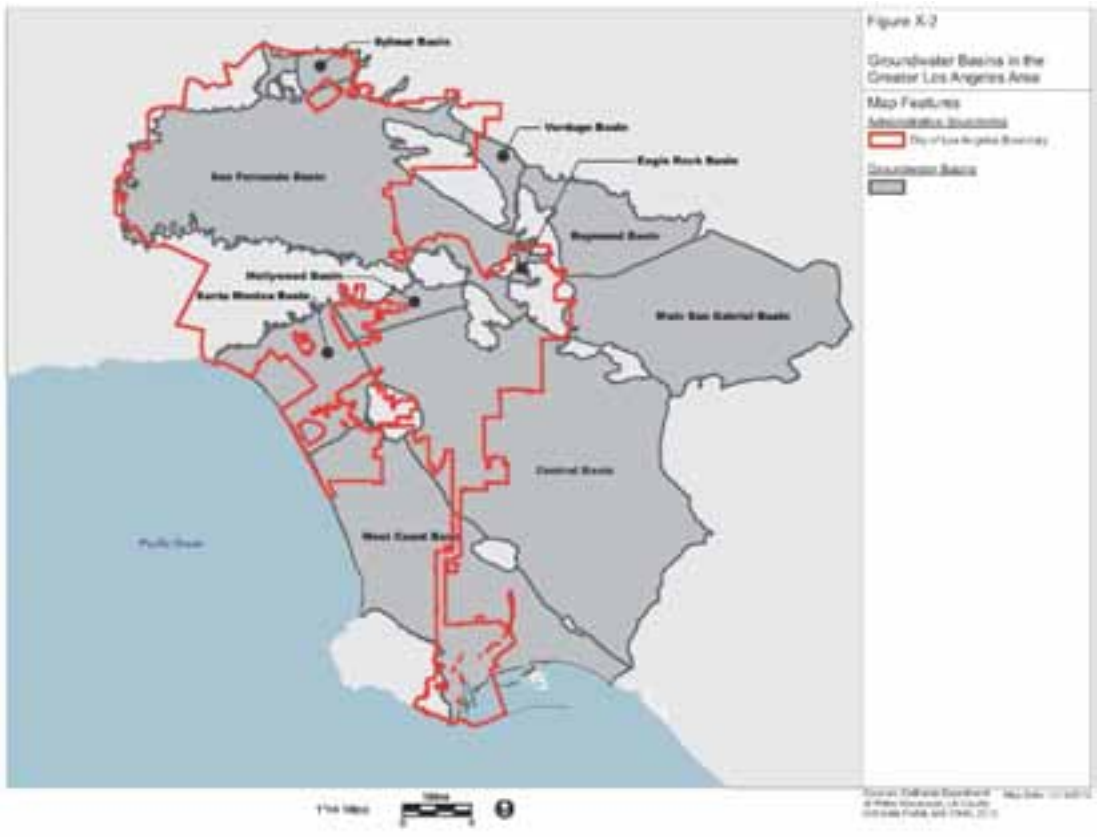


Figure 3.6-2
Groundwater Basins

[102]Ibid.

Groundwater Quality

According to the Basin Plan, the general quality of groundwater in the Los Angeles region has degraded substantially from historic levels. Much of the degradation reflects chemicals such as fertilizers and pesticides typically used on lawns and agricultural lands, which can degrade groundwater when irrigation waters containing such substances seep into the subsurface. Though no longer common in the City, where septic tanks are used, nitrogen and pathogenic bacteria from overloaded or improperly sited septic tanks can seep into groundwater and result in health risks to those who rely on groundwater for domestic supply. In areas with industrial or commercial activities, aboveground and underground storage tanks contain vast quantities of hazardous substances. Thousands of these tanks in the region have leaked or are leaking, discharging petroleum fuels, solvents, and other hazardous substances into the subsurface. The leaks, as well as other underground discharges that result from inadequate handling, storage, and disposal practices can seep into the subsurface and pollute groundwater[103].

A separate groundwater quality problem occurs in the Central and West Coast Basins where seawater intrusion has occurred in these basins and is now under control in most areas through an artificial recharge system consisting of spreading basins and injection wells that form fresh water barriers along the coast. Groundwater in the lower aquifers of these basins is generally of good quality, but large plumes of saline water have been trapped behind the barrier of injection wells in the West Coast Basin, degrading significant volumes of groundwater with high concentrations of chloride. Furthermore, the quality of groundwater in parts of the upper aquifers of both the Central and West Coast basins is degraded by both organic and inorganic pollutants from a variety of sources, such as leaking underground tanks, leaking sewer lines, and illegal discharges. As the aquifers and confining layers in these alluvial basins are typically interconnected, the quality of groundwater in the deeper production aquifers is threatened by migration of pollutants from the upper aquifers.

Water Quality Regulations

The federal Clean Water Act (CWA) and the California Ocean Plan are the primary regulations for pollutant discharges in California. The CWA established minimum national water quality goals and created the National Pollutant Discharge Elimination System (NPDES) permit system to regulate the quality of discharged wastewater. Municipal and industrial stormwater runoff is regulated under this system and all dischargers must obtain NPDES permits.

The California Ocean Plan is a water quality control plan for marine waters and prohibits discharges into Areas of Special Biological Significance[104] (see Figure 3.6-4). The CWA has established 126 "priority contaminants" (metals and organic chemicals) and the California Ocean Plan has established effluent limitations for 21 of these pollutants.

[103]Los Angeles Regional Water Quality Control Board, Water Quality Control Plan: Los Angeles Region,1994.
[104] California Ocean Plan, State Water Resources Control Board, 2009.

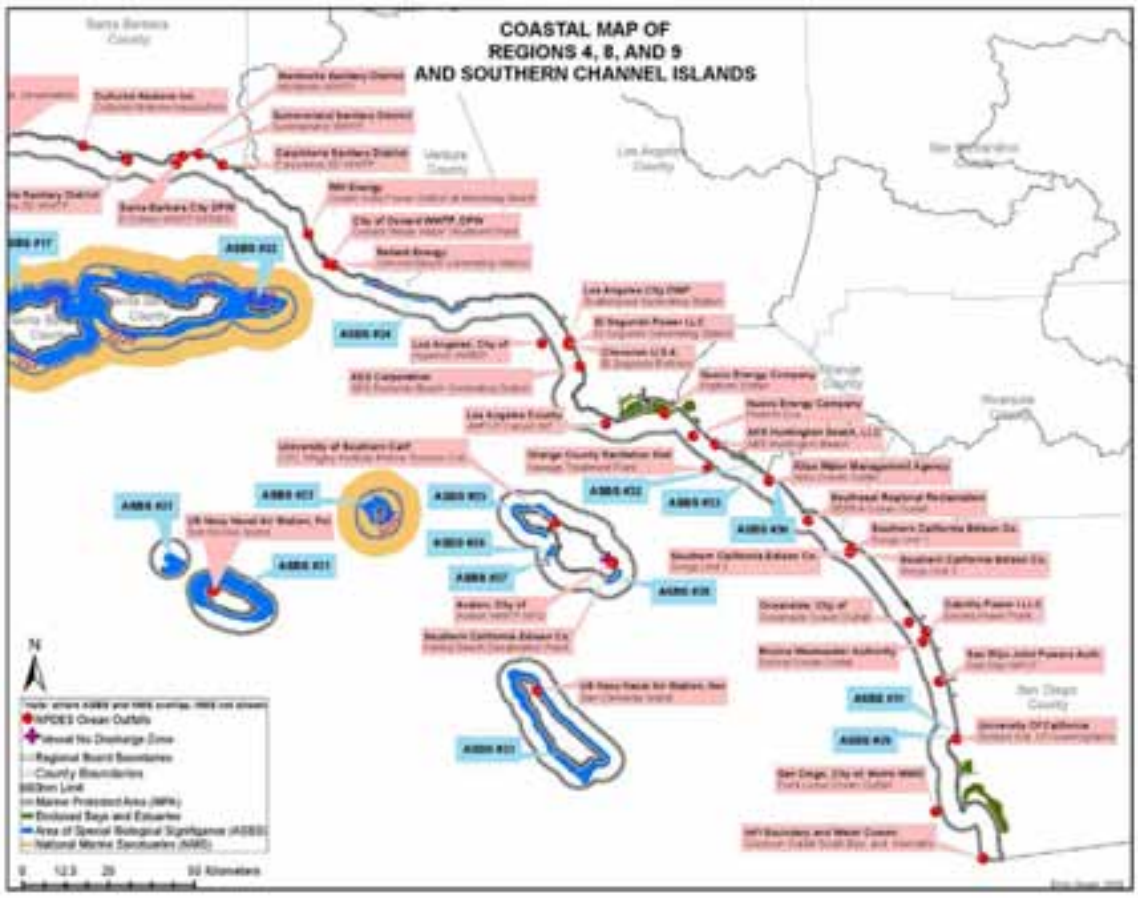


Figure 3.6-3
California Ocean Plan

The U.S. Environmental Protection Agency (USEPA) is the primary federal agency responsible for implementing the CWA. The State Water Resources Control Board (SWRCB), Ocean Unit, is the responsible agency for the development and updating of statewide water quality control plans, policies, and standards involving marine waters, including the California Ocean Plan. The SWRCB oversees the Regional Water Quality Control Boards (RWQCBs) that in turn, develop regional Basin Plans.

The City of Los Angeles is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB) which has jurisdiction over the coastal drainages between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line, which includes the entire City of Los Angeles. As required by the CWA, the LARWQCB adopted the Basin Plan for the Los Angeles Region, which established water quality objectives for surface waters and groundwater within the Los Angeles region. Section 303(d) of the CWA requires that the LARWQCB identify impaired waters and establish Total Maximum Daily Loads (TMDLs) - the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards - to ensure the attainment of the water quality objectives. The LARWQCB has adopted TMDLs for trash as an amendment to the Basin Plan. Trash TMDLs are specifically tied to water quality objectives for "floating materials" and "solid", suspended and settleable materials. Plastic carryout bags are considered a component of trash because discarded plastic carryout bags can be found in stormwater runoff and discharges.

The City of Los Angeles General Plan, Conservation and Framework Element also address water quality issues. The intent of the Conservation Element is the conservation and preservation of natural resources. The Conservation Element contains policies intended to protect the ocean from contamination and the Framework Element contains policies that address stormwater and water quality (see Table 3.6-1).

Table 3.6-1
Relevant General Plan Water Quality Goals, Objectives, and Policies

Policy/Objective	Policy /Objective Description
CONSERVATION ELEMENT – OCEAN	
Policy 1	Continue to reduce pollutant discharge into the bays from both natural and human sources.
Policy 3	Continue to support and/or participate in programs to clean bay sediments and/or mitigate potentially harmful effects of contaminants in the sediments and waters of the bays.
FRAMEWORK ELEMENT – STORMWATER	
Objective 9.6	Pursue effective and efficient approaches to reduce stormwater runoff and protect water quality.
Policy 9.6.2	Establish standards and/or incentives for the use of structural and non-structural techniques which mitigate flood-hazards and manage stormwater pollution.
Policy 9.6.3	The City's watershed-based approach to stormwater management will consider a range of strategies designed to reduce flood hazards and manage stormwater pollution. The strategies considered will include, but not necessarily be limited to: a. Support regional and City programs which intercept run off for beneficial uses including groundwater recharge; b. Protect and enhance the environmental quality of natural drainage features; c. Create stormwater detention and/or retention facilities which incorporate multiple-uses such as recreation and/or habitat; d. On-site detention/retention and reuse of runoff; e. Mitigate existing flood hazards through structural modifications (flood proofing) or property buy-out; f. Incorporate site design features which enhance the quality of off-site runoff; and g. Use land use authority and redevelopment to free floodways and sumps of inappropriate structures which are threatened by flooding and establish appropriate land uses which benefit or experience minimal damages from flooding.
Policy 9.6.4	Proactively participate in inter-agency efforts to manage regional water resources, such as the Santa Monica Bay Restoration Project, the Los Angeles River Master Plan, the Los Angeles River Parkway Project and the Los Angeles County Drainage Area Water Conservation and Supply Feasibility Study.

Table 3.6-1
Relevant General Plan Water Quality Goals, Objectives, and Policies

Policy/Objective	Policy /Objective Description
Objective 9.7	Continue to develop and implement best-management-practices-based stormwater programs which maintain and improve water quality.
Policy 9.7.1	Continue the City's active involvement in the regional NPDES municipal stormwater (MS4) permit.
Policy 9.7.3	Investigate management practices which reduce stormwater pollution to identify technically feasible and cost effective-approaches, through: a. Investigation of sources of pollution using monitoring, modeling and special studies; b. Prioritization of pollutants and sources; c. Conducting research and pilot projects to study specific management practices for the development of standards; and d. Developing requirements which establish implementation standards for effective management practices.
Policy 9.9.3	Protect existing water supplies from contamination, and clean up groundwater supplies so those resources can be more fully utilized.
Policy 9.9.5	Maintain existing rights to groundwater and ensure continued groundwater pumping availability.

City of Los Angeles, *General Plan Conservation Element* and *The Citywide General Plan Framework*, 2001.

Impact Criteria

The proposed ordinance would have a significant impact related to hydrology and water quality if it would:

- Violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table, and/or
- Otherwise substantially degrade water quality

Environmental Impact

Water Quality

Litter

With implementation of the proposed ordinance, under the "worst case" scenario, 5% of existing single-use plastic carryout bag usage would continue, 30% would be replaced with recyclable paper carryout bags, and the remaining 65% would be replaced with reusable carryout bags. Based on these estimates, of the approximately 2 billion single-use plastic bags used annually in the City of Los Angeles, only 100 million would continue to be used annually. According to the County of Los Angeles announcement on the first year of implementing the County's Single-Use Bag Ordinance, 125,000 paper bags were provided per large store compared to approximately 2.2 million plastic bags and 196,000 single-use paper bags provided per store annually prior to the ordinance going into effect in the third quarter of 2011. Single-use paper carryout bag usage continues to decline with an overall reduction of 34% between 2009 and the first quarter of 2012, including a nearly 13% reduction occurring within the first three quarters of the year following the enactment of the ordinance[105]. The City of Los Angeles is part of the Los Angeles county and it is anticipated that the City would have a similar reduction in single-use paper bag usage following the implementation of the proposed ordinance.

The potential for each type of single-use bag to become litter is based on the bag's weight, material, and quantity used. As previously described, the majority of single-use plastic bags end up as litter or are deposited at landfills. Single-use plastic bags that become litter may enter storm drains from surface water runoff or may be blown directly into local waterways by the wind. Single-use plastic bag litter that enters the storm drain system can block or clog drains resulting in contamination. According to the Green Cities California Master Environmental Assessment (MEA), almost 20 billion plastic grocery bags are consumed annually in California. In the City, more than two billion single-use plastic bags are used annually. The 95% reduction in the overall number of single-use plastic bags used in the City anticipated to occur with implementation of the proposed ordinance is expected to have a commensurate reduction in the potential for single-use plastic bags to enter and clog area storm drains.

Single-use paper bags have the potential to enter stormdrains and local waterways as litter. However, as described above, due to their weight and recyclability, single-use paper bags are less likely to become litter compared to single-use plastic bags. Further, because single-use paper bags disintegrate when soaked with water, they would be less likely to block or clog drains. Therefore, single-use paper bags, the use of which may temporarily increase with implementation of the proposed ordinance, would be less likely to result in storm drain blockage or contamination than under current conditions. As described above, due to the weight and sturdiness of reusable bags, reusable bags are less likely to become littler than both single-use plastic and paper bags. The increased use of reusable bags, which is anticipated and encouraged under the proposed ordinance, would not degrade water quality as a result of litter compared to existing conditions.

Therefore, the implementation of the proposed ordinance is anticipated to reduce the amount of litter that could enter storm drains and local waterways through the substantial reduction of single-use plastic bag use, thus improving water quality. Thus, the proposed ordinance would result in a beneficial impact on water quality.

[105]County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag

Manufacturing

Single-use plastic bag manufacturers use "pre-production plastic", and single-use paper and reusable bag manufacturers use various chemicals and materials such as fertilizers and pesticides. If these materials and chemicals are released, either directly into a stream or indirectly via stormwater runoff, higher natural concentrations of trace metals, biodegradable wastes (which affect dissolved oxygen levels), and excessive major nutrients such as nitrogen and phosphorus may be found in local water bodies, thereby degrading water quality.

Single-use plastic bags are manufactured using pre-production plastic. Pre-production plastic which typically occurs as plastic resin pellets, are a concern when accidentally released into storm drains during use or transport. Other products used in the manufacturing process, such as petroleum and natural gas, also have the potential to be accidentally released during transport or use. Plastic manufacturing, handling, and transportation are subject to regulations and must implement best management practices to prevent and control the accidental release of contaminates, as regulated by the US EPA.

Single-use paper bags are typically made from kraft pulp which is produced by chemically separating cellulose from lignin. Although it does not directly discharge pollutants, the paper bag manufacturing process may utilize fertilizers, pesticides and other chemicals in the production of raw materials. While the direct discharge of pollutants into waters of the United States is not permitted by the NPDES program, these chemicals may increase the potential for higher concentrations of trace metals, biodegradable wastes, and excessive major nutrients such as nitrogen and phosphorus in waters, causing eutrophication, (i.e. depletion of oxygen in water whereby a body of water becomes rich in dissolved nutrients from fertilizers or sewage that encourage the growth and decomposition of oxygen-depleting plant life and results in harm to other organisms). According to the Green Cities California MEA, a single-use paper bag has 14 times the impact of one single-use plastic bag on eutrophication, stimulating excessive growth of algae and other aquatic life. Eutrophication degrades water quality and causes a variety of problems, including a lack of oxygen in the water.

Reusable bags can be manufactured with various materials, including polyethylene (PE) plastic, polypropylene (PP) plastics, multiple types of cloth (cotton canvas, nylon, etc.), and recycled plastic beverage containers (polyethylene terephthalate, or PET), among others. The potential for water quality to be degraded is dependent on the type of material used in the manufacturing process. Similar to paper bags, certain types of reusable bags, such as cotton canvas, may utilize fertilizers, pesticides and other chemicals during production of raw materials and manufacturing. These pollutants may cause eutrophication if released into the waterways. According to the Green Cities California MEA, a single reusable low density polyethylene (LDPE) bag has 2.8 times the impact of a single-use plastic bag on eutrophication.

While there are no known single-use plastic, paper, or reusable bags manufacturing facilities within the City of Los Angeles, as is the case for all manufacturing operations, any manufacturer of single-use plastic, paper bags, and reusable bags would be subject to all applicable federal, State, regional and local water quality standards and waste discharge requirements, including NPDES and the City's Water Quality Compliance Master Plan for Urban Runoff and Stormwater Program. NPDES program requirements regulate discharges to surface and groundwater and waste disposal sites, and require clean up of discharges of hazardous materials and other pollutants. The City's Water Quality Compliance Master Plan for Urban Runoff and City's Stormwater Program requires the preparation and implementation of a Standard Urban Stormwater

Mitigation Plan (SUSMP) to reduce the discharge of pollutants in stormwater, including implementation of best management practices during operation.

With implementation of the proposed ordinance, the number of single-use plastic bags manufactured in response to demand for those bags in the City would be significantly reduced, as would the number of single-use paper bags (based on the Los Angeles County data showing a 13% reduction rate within the first three quarters after the implementation of the County's ordinance banning single-use plastic carryout bags in 2011)[106]. The reusable bags manufactured for use in the City would incrementally increase to address demand created in the absence of single-use plastic bags. However, as reusable bags would be expected to replace millions of single-use plastic and paper bags because they would be used repeatedly, water quality impacts associated with the manufacturing of reusable bags would be reduced compared to the manufacturing of single-use plastic and paper bags. Consequently, the proposed ordinance would reduce overall impacts to water quality associated with bag manufacturing. Furthermore, as described above, manufacturing facilities would be required to adhere to existing federal, State and local regulations water quality regulations. Therefore, this impact would be beneficial a long term.

Groundwater

Industrial activities, such as the manufacturing of single-use paper and plastic bags, and reusable bags have the potential to create discharges that can seep into the subsurface and pollute groundwater. These activities are subject to all applicable federal, State and local water quality standards and waste discharge requirements, including the NPDES program requirements, and the City's Water Quality Compliance Master Plan for Urban Runoff and City's Stormwater Program.

While the manufacturing of single-use plastic and paper bags, and reusable bags presents similar risks for groundwater contamination, reusable bags would be expected to replace millions of single-use plastic and/or paper bags. Accordingly, the number of reusable bags manufactured to satisfy demand in the City of Los Angeles would be considerably smaller than the number of single-use plastic and paper carryout bags. Therefore, the proposed ordinance would be expected to indirectly reduce the potential for harmful compounds to be discharged into groundwater supplies during manufacturing, resulting in a beneficial impact.

The proposed ordinance does not involve any construction of new structures, such as manufacturing facilities, that could result in an increase in impervious surfaces that would potentially reduce groundwater levels. There are no known reusable bags manufacturing facilities in Los Angeles, and any future facility manufacturing reusable bags, if any, would use water supplied by the City from its portfolio of water sources and be subject to the City's water allocations, as applicable. Therefore, the proposed ordinance would result in a less than significant impact related to groundwater.

Mitigation Measures

Impact related to water quality would be beneficial and impact related to groundwater would be less than significant. No mitigation measures are required.

[106] County of Los Angeles, About the Bag, Announcements: September 2012.

Level of Impact after Mitigation

Impact related to water quality would be beneficial and impact related to groundwater would be less than significant. No mitigation measures are required.

Cumulative Impact

In California, more than 50 Cities and Counties already adopted single-use plastic bag ordinances, and more such ordinances are anticipated to be adopted in the future. As discussed above, with implementation of the proposed ordinance, the number of single-use plastic bags entering the storm drain system as litter and being manufactured would be significantly reduced, thereby reducing water quality impacts associated with single-use plastic bags and complying with applicable water quality standards and waste discharge requirements. Further, the number of single-use paper bags is anticipated to be significantly reduced as a result of the past, present and foreseeable future proposed ordinances (based on the Los Angeles County data showing a 13% reduction rate within the first three quarters of the year after the implementation of the County's ordinance banning single-use plastic carryout bags in 2011[107]), while manufacturing of single-use paper bags and reusable bags would continue to be addressed through compliance with applicable federal, State and local water quality regulations, including NPDES. Accordingly, implementation of the proposed ordinance in combination with the past, present, or reasonably foreseeable, probable future ordinances would result in a beneficial cumulative impact on water quality.

The adopted and reasonably foreseeable future ordinances, and the proposed ordinance, do not involve any construction of new structures, such as manufacturing facilities, that could result in an increase in impervious surfaces that would potentially reduce groundwater levels. As with the proposed ordinance, any future facility manufacturing reusable bags would use water supplied by the appropriate jurisdictional water provider from its portfolio of water sources and be subject to the provider's water allocations, as applicable. Therefore, the proposed ordinance would result in a less than significant cumulative impact related to groundwater.

[107] County of Los Angeles, About the Bag, Announcements: September 2012

3.7 Mineral Resources

This section examines mineral resources and evaluates potential impacts associated with the proposed City of Los Angeles Single-Use Bag Ordinance project. Statewide/regional and local mineral resources are addressed and the proposed project is evaluated in terms of whether its implementation would result in the permanent loss of, or loss of access to, mineral resources occurring within the City of Los Angeles.

Environmental Setting

Fossil fuels are the primary raw material used in the production of plastic bags, and essential to the modern manufacturing process used to produce other types of bags. According to Hyder Consulting (2007), single-use plastic bags and reusable non-woven plastic polypropylene bags are produced using a by-product of gas or oil refining. Although kraft paper bags (commonly used in grocery stores), cotton bags, and starch-based biodegradable bags are manufactured from renewable resources, significant fossil fuel use is required for the manufacture of these types of bags[108].

Manufacturing one billion super-thin plastic bags per day for one year requires 37 million barrels of oil[109]. Approximately 10% of US oil and gas productions and imports are used in synthetic plastic production[110]. According to the cradle-to-grave Boustead Consulting study (2007), approximately 23.2 kilograms (kg) of fossil fuel is used in the manufacture of 1,000 paper bags composed of at least 30% recycled fiber, whereas it takes 14.9 kg for 1500 single-use PE plastic bags and 41.5 kg for 1500 compostable plastic bags[111].

Statewide/Regional Mineral Resources

The California Board of Mining and Geology adopted guidelines for the management of mineral resources and preparation of local plans. The guidelines require local general plans to reference the State-identified mineral deposits and sites that are identified by the State geologist for conservation and/or future mineral extraction.

The State geologist classified Mineral Resources Zone-2 (MRZ-2) sites within the City of Los Angeles. MRZ-2 sites contain potentially significant sand and gravel deposits which are to be conserved. Any proposed development plan must consider access to the deposits for purposes of extraction. According to the City of Los Angeles General Plan Framework EIR, a MRZ-2 area is

[109]This statistic is based on a survey by the China Plastics Processing Industry Association, according to Zaleski 2008, as reported in Chan et al (2009).
[110]DiGregorio (2009).
[111]Boustead Associates (2007) assumes that 1500 plastic bags have an equivalent carrying capacity of 1000 paper bags.

partially located in the northern portion of the Southeast Los Angeles Community Plan Area, primarily north of Vernon Avenue between Figueroa Street and Alameda Street[112].

Local Mineral Resources

Additionally, the Los Angeles Basin is known to be a source of petroleum. Most of the petroleum is from the Lower Pliocene (3 to 5 million years old) and from the Upper Miocene (5 to 11 million years old) rock formations. Oil deposits underlie portions of downtown and west Los Angeles, the harbor area and the Santa Monica and San Pedro bays. Twenty producing oil fields lie wholly or partially within the City. The Wilmington field is one of the largest in the State, with 1,332 wells that produce 54,612 barrels of oil per day[113].

Regulatory Framework

Federal

Bureau of Land Management. The Bureau of Land Management (BLM), an agency within the United States Department of the Interior, administers 261 million surface acres of America's public lands, located primarily in 12 Western States. The BLM is responsible for managing commercial energy and mineral production from the public lands in an environmentally sound and responsible manner. The BLM is responsible for the leasing of federal oil and gas and geothermal minerals and is also responsible for supervising the exploration, development, and production operations of these resources on both Federal and Indian lands. The BLM is responsible for maintaining viable national policies and processes for solid minerals resources under Federal jurisdiction. Solid minerals include coal and non-energy leasable minerals, hard rock minerals on acquired lands, locatable minerals, and salable minerals.

State

Surface Mining and Reclamation Act. The Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Mining and Geology Board (Board) map areas throughout the State of California that contain regionally significant mineral resources. Construction aggregate resources (sand and gravel) deposits were the first commodity selected for classification by the Board. Once mapped, the Board is required to designate for future use those areas that contain aggregate deposits that are of prime importance in meeting the region's future need for construction-quality aggregates. The primary objective of SMARA is for each jurisdiction to develop policies that will conserve important mineral resources, where feasible, that might otherwise be unavailable when needed. SMARA requires that once policies are adopted, local agency land use decisions must be in accordance with its mineral resource management policies. These decisions must also balance the mineral value of the resource to the market region as a whole, not just their importance to the local jurisdiction.

Division of Oil, Gas, and Geothermal Resources. The Division of Oil, Gas, and Geothermal Resources (DOGGR) within the State Department of Conservation supervises the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells to protect the environment, public health, and safety, and encourage good conservation practices. DOGGR collects data on the location of groundwater, oil, gas, and geothermal resources, and records the location of all drilled and abandoned wells.

[112]City of Los Angeles, City of Los Angeles General Plan Framework EIR, Figures GS-1 and GS-6.
[113]City of Los Angeles, City of Los Angeles General Plan Framework EIR.

California Geologic Survey (CGS). Based on guidelines adopted by the CGS, areas known as Mineral Resource Zones (MRZ) are classified according to the presence or absence of significant deposits, as defined below. These classifications indicate the potential for a specific area to contain significant mineral resources:

- **MRZ-1**: Areas where available geologic information indicates there is little or no likelihood for presence of significant mineral resources.
- **MRZ-2**: Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present or where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- **MRZ-3**: Areas containing known mineral occurrences of undetermined mineral resource significance.
- **MRZ-4**: Areas of no known mineral occurrences where geologic information does not rule out the presence or absence of significant mineral resources.

Much of the area within the MRZ sites in Los Angeles was developed with structures prior to the MRZ classification and, therefore, is unavailable for extraction.

Local

City of Los Angeles General Plan Safety and Conservation Element. The City of Los Angeles General Plan provides growth and development policies by providing a comprehensive long-range view of the City as a whole. The Safety and Conservation Element of the General Plan consists of an identification and analysis of the existing natural resources in the City of Los Angeles. Policies of the Safety and Conservation Element include the preservation of mineral resources and access to these resources. The applicable Safety Element and Conservation Element policies and objectives are shown in Table 3.7-1.

Table 3.7-1
Safety Element and Conservation Element Policies

Policy	Policy Description
SAFETY ELEMENT – HAZARDS MITIGATION	
Policy 1.1.4	Health/environmental protection. Protect the public and workers from the release of hazardous materials and protect City's water supplies and resources from contamination resulting from accidental release or intrusion resulting from a disaster event, including protection of the environment and public from potential health and safety hazards associated with program implementation.
CONSERVATION ELEMENT - RESOURCE MANAGEMENT (FOSSIL FUELS) - PETROLEUM (OIL AND GAS)	
Policy 1	Continue to encourage energy conservation and petroleum product reuse.
Policy 3	Continue to protect neighborhoods from potential accidents and subsidence associated with drilling, extraction, and transport operations, consistent with California Department of Conservation, Division of Oil and Gas requirements.

Source: City of Los Angeles General Plan, Safety Element, 1996, and Conservation Element, 2001.

Oil Drilling District and Rock and Gravel District Procedures. To regulate subsurface extraction activities, the City established Oil Drilling District procedures in 1948 and Rock and Gravel District procedures in 1951. Both contain provisions for imposing and monitoring

mitigation measures to prevent significant subsidence related to oil and gas extraction and mining activities. The districts are established as overlay zones and are administered by the Department of City Planning with the assistance of other City agencies. The City Oil Administrator is responsible for monitoring oil extraction activities and has the authority to recommend additional mitigation measures to the Planning Commission after an Oil Drilling District is established. The Planning Department Office of Zoning Administration issues and administers oil drilling permits and may impose additional mitigation measures, as deemed necessary, after a permit has been granted, such as measures to address subsidence.

City of Los Angeles Municipal Code (LAMC). To comply with SMARA, the City of Los Angeles adopted in 1975 the 'G' Surface Mining supplemental use provisions (LAMC Section 13.03). Subsequent amendments have brought the City's provisions into consistency with new state requirements. The 'G' provisions are land use, not mineral conservation regulations. They regulate the establishment of sand and gravel districts, extraction operations, mitigation of potential noise, dust, traffic, and other potential impacts, as well as post-extraction site restoration. Other conditions may be imposed by the City if deemed appropriate.

The 'O' Oil Drilling supplemental use district provisions of the Municipal Code (Section 13.01) were initially enacted in 1953. They delineate the boundaries within which surface operations for drilling, deepening, or operation of an oil well or related facilities are permitted, subject to conditions and requirements set forth in the code and by a Department of City Planning Zoning Administrator, the Fire Department, and the City's Petroleum Administrator of the Office of Administrative and Research Services. The conditions protect surrounding neighborhoods and the environment from potential impacts, e.g., noise, hazard, spills, and visual blight. In addition, the Department of Water and Power monitors drilling operations to assure protection of water wells and aquifers. Property owners, including the City, receive oil production royalties from lands (e.g., city streets) that lie within oil drilling districts.

Impact Criteria

The proposed project would have a significant impact related to mineral resources if it would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; and/or
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Environmental Impact

According to data collected by the County of Los Angeles after the County's Single-Use Bag Ordinance was enacted, approximately 125,000 paper bags were provided annually per large store compared to approximately 2.2 million plastic bags and 196,000 single-use paper bags provided per store prior to the ordinance going into effect in the third quarter of 2011. Single-use paper carryout bag usage continues to decline with an overall reduction of 34% between 2009 and the first quarter of 2012, including a nearly 13% reduction occurring within the first three quarters of

the year following the enactment of the ordinance[114]. The data indicate that the use of paper carryout bags in large stores not only did not temporarily increase as a result of a ban of single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance. Based on these data, it is anticipated that there would be a similar reduction in paper bag use with the proposed ordinance. Therefore, the proposed ordinance would not be expected to directly affect the extraction of mineral resources used in manufacturing of paper bags, and is not expected to result in a significant impact to mineral resources.

The proposed ordinance would not result in impacts to mineral resources in relation to the loss of availability of a known mineral resource recovery site. There are three areas with sand and gravel resources of state-wide or regional importance within the City; however, the proposed ordinance is a ban of single-use plastic carryout bags at retail stores that would not affect these mineral resources. Oil is also a mineral resource that is present, and being extracted, in the City. Single-use plastic bags and reusable non-woven plastic polypropylene bags are produced using a by-product of gas or oil refining. While there are no known single-use plastic or reusable bags manufacturing facilities in Los Angeles, the manufacture of these bags for use within the City would involve petroleum and/or natural gas. However, any potential use of petroleum in the manufacturing process of reusable bags, and the remaining single-use plastic bags, for use in the City is anticipated to be offset by the elimination of petroleum used in manufacturing of over 2 billion single-use plastic bags currently consumed in the City every year. No significant impact to local oil fields is anticipated.

Mitigation Measures

Impact to mineral resources would be less than significant. No mitigation measures are required.

Level of Impact after Mitigation

Impact to mineral resources would be less than significant. No mitigation measures are required.

Cumulative Impact

As discussed above, the results of the first year assessment of the County of Los Angeles' Single-Use Bag Ordinance showed that at applicable stores single-use plastic bag were eliminated and paper bag use was significantly reduced. Therefore, a similar reduction in paper bag use is anticipated with the City proposed ordinance, as well as with similar ordinances adopted by other jurisdictions. Therefore, the proposed ordinance would not result in a cumulatively considerable contribution to impact to mineral resources.

[114] County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag

3.8 Noise

This section examines the potential noise impacts associated with the adoption and implementation of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance.

Environmental Setting

The City of Los Angeles is the second largest city in the nation with numerous noise sources, including aircraft, rail, highway and freeway transportation systems, and the day-to-day activities of its residential, commercial, and industrial uses. Transportation systems are a primary source of urban noise, and they include noise generated by truck traffic. The traffic noise generated by trucks includes the noise associated with the approximately 2.7 trips per day (see Section 3.10, Traffic) for delivery of single-use plastic carryout bags that are consumed in the City.

Impact Criteria

Impact is considered significant if the proposed project would result in:

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, and/or
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

Environmental Impact

The proposed ordinance is intended to lead to a reduction in the use of single-use plastic carryout bags, and an increase in the use of reusable carryout bags. The increased use of reusable carryout bags, as well as the use of recyclable single-use paper carryout bags that would be available for purchase by customers at the regulated stores, may lead to an additional 5.8 truck trips per day delivering those bags (see Section 3.10, Traffic). This estimate of the potential change in truck trips is based on a conservative "worst case", albeit unlikely, scenario where all bags are delivered by truck in separate, dedicated loads. The scenario's assumptions also include: (1) an assumption that 5% of existing plastic bag use in the City would remain since the proposed ordinance would not apply to some retailers who distribute single-use plastic carryout bags (such as restaurants, dry cleaners, and farmer's markets); (2) an assumption that 30% of existing plastic bag use would convert to recyclable single-use paper carryout bag use on a 1:1 ratio, even though a paper carryout bag generally has a 1.5 times greater volume than a plastic bag (20.48 liters versus 14 liters), and the preliminary data submitted by stores during the first three quarters of the year following the enactment of the Los Angeles County ordinance - which banned single-use plastic carryout bags and imposed a charge on paper bags - shows a significant overall decline in

single-use paper carryout bag usage with an overall reduction of 34% between 2009 and the first quarter of 2012, including a nearly 13% reduction occurring within the first three quarters of the year following the enactment of the ordinance[115], and (3) an assumption that 65% of plastic bag use would convert to reusable bags where a reusable bag is conservatively assumed to be used by a customer only once per week for one year, or 52 times[116].

Under this "worst case" scenario, the implementation of the proposed ordinance has a potential to add approximately 5.8 truck trips per day to the street and highway system within the approximately 469 square-mile City of Los Angeles. It is anticipated that such trucks would utilize major regional freeways and routes (including the I-5, I-10, I-210, I-405, I-605, I-710 and SR-2, SR-60, SR-91, SR-110, and SR-118 freeways) and major arterial streets in the city (including Sepulveda Boulevard, Van Nuys Boulevard, Pico Boulevard, Wilshire Boulevard, Vermont Avenue, Venice Boulevard, Washington Boulevard, Slauson Avenue, and Manchester Avenue) that carry commercial traffic.

However, while the bags may be delivered in dedicated truck loads to regional distributors who then distribute the bags for deliveries within Los Angeles, the bags are typically delivered to supermarkets and retail stores as part of regularly scheduled larger mixed loads of groceries and merchandise[117] by trucks and vans. Therefore, there may not be an actual net increase in truck traffic and thus, in truck noise from the change in bag use, particularly since paper and reusable bags could be continued to be included in each regularly scheduled mixed load delivery to the grocery stores, supermarkets, and other retail stores.

Even with the addition of up to 5.8 truck trips per day under the "worst case" scenario to the existing freeways and the City's roadways system, the project has no potential to double existing traffic volumes as to result in a noticeable increase in noise levels[118] along any roadway. Impact would be less than significant.

Mitigation Measures

Impact, if any, would be less than significant and therefore no mitigation is necessary.

Level of Impact after Mitigation

Impact, if any, would be less than significant and therefore no mitigation is necessary.

[115] County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag

[116] City of Santa Monica Single-Use Carryout Bag Ordinance EIR, January 2011; County of San Mateo Single Use Bag Ban Ordinance EIR, January 2012.

[117] City of San Jose Single-Use Carryout Bag Ordinance EIR, October 2010.

[118] A 3 dB(A) change in noise level is considered to be just-perceivable by the average person. The decibel **(**dB**)** is the unit used to measure the intensity of a sound, and the decibel scale which gives more weight to those frequencies used in human speech, the dB**(A)**, is an expression of the relative loudness of sounds in air as perceived by the human ear. A change in power ratio by a factor of two (doubling) is approximately a 3 dB change.

Cumulative Impact

Numerous ordinances banning single-use plastic carryout bags in California, that cover more than 50 County and City jurisdictions, have already been implemented, and additional ordinances are likely to be adopted and implemented in the future throughout California. The implementation of the proposed ordinance together with the implementation of other jurisdictions' ordinances is intended to substantially reduce the use of plastic bags and promote the shift to reusable bags by shoppers and customers. The truck trips associated with the delivery of reusable and paper carryout bags would occur throughout California's extensive freeway and street systems and would be partially offset by the reduction in delivery of single-use plastic carryout bags. Also, while the reusable and paper carryout bags may be delivered in dedicated loads to regional distributors who then distribute the bags for deliveries within the City of Los Angeles and other California cities and counties, the bags are typically delivered to supermarkets and retail stores as part of larger mixed loads of groceries and merchandise[119]. Therefore, there may not be an actual cumulative increase in truck traffic noise from the change in bag use, particularly since paper and reusable bags could continue to be included in each mixed load delivery to the grocery stores, supermarkets, and other retail stores. Impact, if any, would be less than significant.

[119]City of San Jose Single-Use Carryout Bag Ordinance EIR, October 2010.

3.9 Sanitation Services

This section examines the potential impact on the City's sanitation services associated with the public education component of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance.

Environmental Setting

The City's Bureau of Sanitation (BOS) provides waste-related services within the City of Los Angeles for over 3 million residents and for the City's businesses. These services include solid waste collection and disposal, recycling of various types of recyclable wastes, management of universal (also known as 'household hazardous') and electronic waste, wastewater collection and treatment, stormwater collection and diversion, and watershed protection.

Solid Resources

The BOS's Solid Resources activities include: the management and operation of the approximately 750 vehicles that collect refuse and recyclables from the City's single-family residences; the closure and monitoring of City's retired landfills; regional green waste mulching operations for the green waste and yard trimmings collected by the City, and public education programs that teach and encourage recycling and backyard composting. The BOS manages a comprehensive recycling program that annually collects over 240,000 tons of recyclables and 480,000 tons of yard trimmings. With a goal of 75% diversion of refuse from landfills by 2020, the BOS has developed and implemented effective and economically feasible source reduction, buy-recycled, Environmentally Preferable Purchasing (EPP), and reuse programs, activities, and policies for its residential, businesses, and institutional users. The BOS has also created a pilot program to expand collection of recycling to apartments and other multi-family residential units; developed a facilities plan to determine better ways of processing recyclables; and brought alternative technologies for consideration in a quest to find options to landfill disposal of refuse.

The BOS also collects everyday household hazardous wastes - such as paint, paint thinners, cleaners and solvents, used oil, furniture polish and unwanted electronic equipment at permanent collection sites throughout the City known as S.A.F.E. CENTERS, and sponsors periodic mobile collection events throughout the city where residents can drop off their waste to be disposed of properly, instead of ending up in the City's waterways.

Wastewater

The BOS is responsible for operating and maintaining one of the world's largest wastewater collection and treatment systems. Over 6,500 miles of sewers serve more than 4,000,000 residential and business customers in Los Angeles and 29 contracting cities and agencies. These sewers are connected to the City's four wastewater and water reclamation plants that process an average of 550 million gallons of wastewater each day of the year. The BOS services include: cleaning, clearing blockages and repairing catch basins; channel and debris basin cleaning**;** storm drain maintenance and repair, and stormwater pollution abatement.

Watershed Protection

The City is developing many programs to help reduce the amount of contaminated runoff in our urban watershed. This broad-based program uses a multi-pronged approach to reduce water pollution and improve the receiving waters and their aquatic environments. Some of the methods that are used include: public education and outreach; commercial/industrial facilities inspection; private development plan approval; construction development activities inspection; illicit discharge and illicit dumping site investigations; and monitoring of the City's receiving water bodies. The BOS is also: developing and supporting collaborative water quality studies and programs; developing and implementing design and engineering solutions; enforcing the City's Stormwater Ordinance; and conducting outreach activities and public education.

Impact Criteria

Impact is considered significant if the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives of sanitation services.

Environmental Impact

The proposed ordinance includes a public education component that would be conducted by the City's BOS during the grace period, which extends 6 months for large retailer and 12 months for small retailers. The BOS has already been conducting a public education program for several years. The program activities include disseminating information to the public and public outreach, providing information to the City's Neighborhood Councils, working with retail stores throughout Los Angeles to install recycle bins for plastic and paper bags and provide information to the customers, and participating in many major events promoting the use of reusable bags throughout the City to help raise awareness about the benefits of using reusable bags. Since 2005, the BOS has purchased and distributed 250,000 reusable bags to encourage shoppers to switch from using single-use carryout bags. The BOS would continue these activities throughout the grace period, including conducting workshops with the Neighborhood Councils about the project. Public outreach and education are an integral part of the BOS's activities and BOS has already been conducting an extensive public information program as part of its day-to-day activities. Continuing these activities would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives of sanitation services. Impact would be less than significant.

Mitigation Measures

Impact would be less than significant, and therefore no mitigation is necessary.

Level of Impact after Mitigation

Impact would be less than significant, and therefore no mitigation is necessary.

Cumulative Impact

Numerous ordinances banning single-use plastic carryout bags in California, covering more than 50 County and City jurisdictions, have already been implemented, and additional ordinances could be adopted and implemented in the future throughout California. Some of the ordinances include a public education component that is conducted by each jurisdiction banning single-use plastic carryout bags. As public information and outreach is a part of these services within each City and County, no cumulatively significant impact would occur.

3.10 Traffic

This section examines the potential traffic impact associated with the adoption and implementation of the proposed City of Los Angeles Single-Use Carryout Bag Ordinance.

Environmental Setting

Currently, 2,031,232,707 - more than two billion - single-use plastic carryout bags per year are consumed in the City of Los Angeles. As a 'worst-case' scenario, delivering these bags to retail stores in separate dedicated loads by truck would result in approximately 977 annual truck trips, or 2.7 trips per day (see Table 3.10-1).

Impact Criteria

Impact is considered significant if the proposed project would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit, and/or

- Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways

Environmental Impact

The proposed ordinance is intended to lead to a reduction in the use of single-use plastic bags and an increased use of reusable bags. The increased use of reusable bags, as well as the use of recyclable paper bags that would be available for purchase by customers at the regulated stores, may lead to additional truck trips delivering those bags. This estimate of the potential change in truck trips is based on a conservative "worst case" scenario, albeit unlikely, where it is assumed that: (1) 5% of existing plastic bag use in the city would remain since the proposed ordinance would not apply to some retailers who distribute single-use plastic bags (such as restaurants, dry cleaners, and farmer's markets); (2) 30% of existing plastic bag use would convert to recyclable paper bags on a 1:1 ratio even though a paper carryout bag generally has 1.5 times greater volume than a plastic bag (20.48 liters versus 14 liters) and the preliminary data submitted by large stores during the first three quarters following the Los Angeles County's ordinance - which banned single-use plastic carryout bags and imposed a charge on paper bags, shows a significant decline in single-use paper carryout bag usage with an overall reduction of 34% between 2009 and the

first quarter of 2012, including a nearly 13% reduction occurring within the first three quarters of the year following the enactment of the ordinance[120]. These data indicate that the use of single-use paper carryout bags in large stores not only did not temporarily increase as a result of a ban on single-use plastic carryout bags, but actually decreased significantly after the enactment of the ordinance; and (3) 65% of existing bag use would convert to reusable bags where a reusable bag is conservatively assumed to be used by a customer only once per week for one year, or 52 times[121]. Table 3.10-1 summarizes the estimated existing and future truck trips per day if all bags are delivered in separate dedicated truck loads.

Table 3.10-1
Estimated Truck Trips per Day for Separate Dedicated Load Delivery

Bag Type	Number of Bags per Year	Number of Bags per Truck Load(2)	Truck Trips per Year	Truck Trips per Day
Existing Truck Trips for Plastic Bags				
Single-Use Plastic	2,031,232,707	2,080,000	977	2.7
Future Truck Trips following the Implementation of the Proposed Ordinance				
Single-Use Plastic(1)	101,561,635	2,080,000	50	0.14
Single-Use Paper(1)	609,369,812	217,665	2,800	7.7
Reusable (1)	25,390,409	108,862	233	0.64
Total			3,083	8.45
Existing Truck Trips for Plastic Bags			(977)	(2.7)
Net New Truck Trips			2,106	5.8

1. Based on a worst case estimate with 5% of existing plastic bag use in the city remaining, 30% of existing plastic bag use converting to recyclable paper bags, and 65% converting to reusable bags (based on 52 uses per year for a reusable bag).
2. City of Santa Monica Single-Use Carryout Bag Ordinance EIR, January 2011; County of San Mateo Single Use Bag Ban Ordinance EIR, January 2012.

Under this theoretical "worst case" scenario, the implementation of the proposed ordinance would have a potential to add approximately 5.8 truck trips per day to the streets and highway system within the 469 square-mile area of the City of Los Angeles. Under this scenario, it is anticipated that such trucks would utilize major regional freeways and routes (including the I-5, I-10, I-210, I-605, I-710 and SR-60, SR-91, SR-110, and other freeways) and major arterial streets in the city (including Sepulveda Boulevard, Pico Boulevard, Wilshire Boulevard, Vermont Avenue, and Venice Boulevard) that carry commercial traffic. However, while the bags may be delivered in dedicated loads to regional distributors who then distribute the bags for deliveries within the City

[120]County of Los Angeles, Department of Public Works, July 2012. http://dpw.lacounty.gov/epd/aboutthebag
[121]City of Santa Monica Single-Use Carryout Bag Ordinance EIR, January 2011; County of San Mateo Single Use Bag Ban Ordinance EIR, January 2012.

of Los Angeles, the bags are typically delivered to supermarkets and retail stores as part of larger mixed loads of groceries and merchandise[122]. Therefore, there may not be an actual net increase in truck traffic from the change in bag use, particularly since paper and reusable bags could continue to be included in each regularly-scheduled mixed load delivery to the grocery stores, supermarkets, and other retail stores.

The public education component of the project, that would be conducted during the grace period of 6 months for large and 12 months for small retailers, would at most generate four car trips per week or 0.57 trips per day by City staff attending workshops with neighborhood councils and others and events promoting the shift to reusable bags. This temporary short-term addition of less than one trip per day would have no impact on traffic conditions in the city's circulation system.

The addition of up to 5.8 truck trips per day under the "worst case" scenario to existing freeways and the City extensive circulation system has no potential to result in a conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system within the City of Los Angeles or with applicable congestion management programs for freeways serving the city. Impact, if any, would be less than significant.

Mitigation Measures

Impact, if any, would be less than significant and no mitigation is necessary.

Level of Impact after Mitigation

Impact, if any, would be less than significant and no mitigation is necessary.

Cumulative Impact

Numerous ordinances banning single-use plastic carryout bags in California that cover more than 50 County and City jurisdictions have already been implemented, and additional ordinances could be adopted and implemented in the future throughout California. The implementation of the proposed ordinance together with the implementation of other jurisdictions' ordinances would substantially reduce the use of plastic bags and promote the shift to reusable bags by shoppers and customers. The truck trips associated with the delivery of reusable and paper bags would occur throughout the entire state of California's extensive freeway and street systems and would be partially offset be the reduction in delivery of plastic bags. Also, while the reusable and paper bags may be delivered in dedicated loads to regional distributors who then distribute the bags for deliveries within the City of Los Angeles and other California cities and counties, the bags are typically delivered to supermarkets and retail stores as part of larger mixed loads of groceries and merchandise[123]. Therefore, there may not be an actual cumulative increase in truck traffic from the change in bag use, particularly since paper and reusable bags could continue to be included in each regularly scheduled mixed load delivery to the grocery stores, supermarkets, and other retail stores. Impact, if any, would be less than significant.

[122] City of San Jose Single-Use Carryout Bag Ordinance EIR, October 2010
[123] Ibid.

3.11 Utilities/ Service Systems

This section examines potential impacts associated with the proposed ordinance on water, wastewater, and solid waste utilities systems.

Environmental Setting

Water

The Los Angeles Department of Water and Power (LADWP) manages the water supply and water delivery for the City of Los Angeles. The LADWP serves approximately 3.9 million residents within a 469 square-mile area with its system of 7,100 miles of water pipelines. The City's water supply has four sources of water: the Metropolitan Water District (MWD), the Los Angeles Aqueduct (LAA), groundwater, and recycled water. These four water sources comprise 52%, 36%, 11%, and 1% percent of the City's water supply, respectively[124]. During the 2010-2011 fiscal year, LADWP supplied approximately 480,302 acre-feet of water[125].

Local Groundwater

The LADWP traditionally extracts groundwater from 9 well fields throughout City-owned property within Owens Valley. In accordance with a long-term groundwater management plan, groundwater pumped from Owens Valley by LADWP is used in Owens Valley and in the City. LADWP's planned pumping for the 2011-12 runoff year is 91,000 acre-feet[126]. Additionally, LADWP currently exercises its adjudicated extraction rights in 5 local groundwater basins: San Fernando, Sylmar, Eagle Rock, Central, and West Coast. These local sources provide approximately 87,000 acre-feet, 3,405 acre-feet, 15,000 acre-feet, 1,503 acre-feet, and 500 acre-feet of groundwater, respectively[127], and collectively provide about 11% of LADWP's water portfolio.

The LADWP plans to continue production from its groundwater basins in the coming years to offset reductions in imported water supplies. However, extraction from the groundwater basins is limited by the water quality and is subject to overdraft protection. Both the LADWP and California Department of Water Resources (DWR) have programs in place to monitor wells to prevent overdraft. LADWP's groundwater pumping practice is based on a "safe-yield" operation.

[124]LADWP, Facts and Figures website, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-factandfigures
[125]An acre-foot of water is equivalent to 325,851 gallons of water.
[126] LADWP, Annual Owens Valley Report, May 2011.
[127]LADWP, Local Groundwater website, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-sourcesofsupply/a-w-sos-localgroundwater

The objective, over a period of years, is to extract an amount of groundwater equal to the native and imported water that recharges the groundwater basins.

Los Angeles Aqueduct (LAA)

Snowmelt runoff from the Eastern Sierra Nevada Mountains and groundwater from Owens Valley Groundwater Basin are collected and conveyed to the City via the LAA. LAA supplies can fluctuate yearly due to varying hydrologic conditions. In recent years, the LAA supplies have been less than the historical average because of LADWP's obligations to perform environmental restoration in Mono and Inyo Counties. Average deliveries from the LAA system have been approximately 239,100 acre-feet of water annually over the last five fiscal years. Based on computer modeling results, LADWP projects that the average annual LAA delivery is expected to be approximately 244,000 acre-feet per year in year 2030[128].

Metropolitan Water District of Southern California (MWD)

The LADWP purchases water from the MWD to supplement its water supplies from the LAA and local groundwater basins. The MWD is the largest water wholesaler for domestic and municipal uses in Southern California. The MWD imports its water supplies from Northern California through the State Water Project (SWP), California Aqueduct (CAA), and the Colorado River through the MWD-owned Colorado River Aqueduct. The MWD is a consortium of 26 member agencies, which includes the LADWP. The MWD service area encompasses the service areas of its 26 member agencies, covering approximately 5,200 square miles, and includes portions of the Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. Per Section 135 of the MWD Act, each of MWD's 26 member agencies has a preferential right to purchase water from the MWD[129]. As of June 30, 2006, the LADWP has a preferential right to purchase 21.16% of MWD's total water supply.

Due to the effects of dry weather conditions and environmental restrictions on water pumping operations within San Francisco Bay/Sacramento-San Joaquin River Delta (Delta), the MWD water supplies may not meet future water demand of its member agencies. To address this possibility, the MWD and its 26 member agencies have prepared a Water Supply Allocation Plan (WSAP). If the MWD cannot meet member water demand for any given year, it uses a formula within the WSAP to allocate water to member agencies in a fair and efficient manner.

Recycled Water

Recycled water is produced by the Hyperion Treatment Plant (HTP), Terminal Island Water Reclamation Plant (TIWRP), Donald C. Tillman Water Reclamation Plant (DCTWRP), and the Los Angeles-Glendale Water Reclamation Plan (LAGWRP). Currently, recycled water is provided for landscape irrigation and commercial uses. Table 3.11-3 provides details about services, capacity, and average daily flows of these treatment plants.

Water Conservation

The City of Los Angeles consistently ranks among the lowest in per person water consumption when compared to other California's cities[130]. This significant accomplishment has resulted from

[128]LADWP, 2010 Urban Water Management Plan, Chapter 11: Water Supply Reliability and Financial Integrity, page 228, January 2011.
[129]The Metropolitan Water District Act was passed in 1928 to form the MWD. The MWD Act governs how the MWD operates within the State.
[130]LADWP, 2010 Urban Water Management Plan, Chapter Three: Water Conservation, January 2011, page 47.

the City's sustained implementation of effective water conservation policies, programs, and ordinances since the 1980s.

The City's commitment to and success in effectively implementing water conservation measures is most clearly illustrated by Citywide water use during the fiscal year 2009/2010 which was below the year 1979 water use levels[131].

Water conservation can be seen as both a demand control measure and/or a supply asset. LADWP identifies conservation as a crucial supply asset in a continued effort to reduce MWD purchases and increase local supply reliability through 2035[132]. To this end, LADWP has set a water conservation goal in the Water Supply Action Plan of reducing potable water demands by an additional 50,000 acre-feet per year by 2030. Furthermore, State legislation, which postdates several City water conservation ordinances, has only strengthened the City's commitment to water conservation and provides added assurance that the City will continue its leadership role in managing demand for water in the near and distant future.

Water Supply Treatment Processes

LADWP supplies water that meets or exceeds all health-related State and Federal standards. LADWP accomplishes that by: (1) filtration of its water supply; (2) security measures safeguarding access to water supply and storage areas; (3) control of algae growth in groundwater and reservoirs; (4) continuous disinfection of water entering mains; and (5) regular water quality testing, inspection, and cross-control prevention.

The water is filtered and treated at the Los Angeles Aqueduct Filtration Plant to ensure a safe drinking water supply. Once at the filtration plant, all water travels through screens that remove environmental debris, such as twigs and dead leaves. Bacteria and other impurities that can affect taste, odor, and color are eliminated by injections of ozone, which acts as a powerful disinfectant, without leaving any residue or byproducts in the water supply. Treatment chemicals are then quickly dispersed into the water, which cause the remaining fine particles to aggregate into mats called floc, which are subsequently removed via a 6 foot-deep coal filter. The final step is the addition of chlorine and fluoride which ensure lasting disinfection.

The City's groundwater supply in the San Fernando and Central Basins is generally clean. LADWP pumps from the clean parts of the basins and disinfects this groundwater with chlorine as a safeguard against microorganisms. Additionally, LADWP continuously monitors the water supply to ensure that all water meets water quality standards, and shows results that are far below the maximum contaminant levels permitted by Federal or State regulations[133].

Water Use Associated with Single-Use Bags

The manufacturing processes of both single-use plastic and single-use paper bags use water, but to different extents. Several studies have shown that the production of single-use paper bags requires more water than does the production of single-use plastic bags, including the Ecobilan Study and the Boustead Study[134,135]. These studies provide specific data, on a per bag basis, for

[131] *Ibid.*

[132] LADWP, 2010 Urban Water Management Plan, Chapter Three: Water Conservation, January 2011, page 224.

[133] LADWP, 2011 Drinking Water Quality Report.

[134] Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France.

single-use plastic, single-use paper, and LDPE reusable bags. However, water use for paper bags varies depending on which Life Cycle Assessment (LCA) data is utilized. The Ecobilan Study determined that per 9,000 liters of groceries, the manufacturing of plastic bags uses 52.5 liters (or 13.87 gallons) of water, paper bags use 173 liters (or 45.7 gallons) of water, and reusable bags (assuming they are used 52 times) use 1.096 liters (0.29 gallons) of water. Similarly, though using slightly different assumptions and data, the Boustead LCA study determined that the manufacturing of single-use bags would require approximately 58 gallons of water for 1,500 plastic bags and approximately 1,004 gallons of water for 1,000 paper bags (assuming that one paper bag could carry the same quantity of groceries as 1.5 plastic bags). The Boustead data does not include estimates for reusable bags. Utilizing the data from these two different studies, Tables 3.11-1 and 3.11-2 summarize the existing water use associated with the manufacture of single-use plastic bags used in the City. As shown, the manufacture of single-use plastic bags currently consumes between 134 and 241 acre-feet of water. Since no manufacturing facilities are located in the City, water consumption associated with single-use plastic bag use does not directly affect LADWP's water supply or conveyance.

Table 3.11-1
Current Water Consumption Associated with Single-Use Plastic Bags based on Ecobilan Data

	Number of Single-Use Plastic Bags	Gallons of Water per bag	Gallons of Water per year	Acre-feet of Water per year
Single-Use Plastic	2,031,232,707	0.0216	43,821,917.51	134.48

Source: Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France; and Ordinances to Ban Plastic Carryout Bags in Los Angeles County FEIR (SCH#2009111104, November 2010).

Table 3.11-2
Current Water Consumption Associated with Single-Use Plastic Bags based on Boustead Data

	Number of Single-Use Plastic Bags	Gallons of Water per bag	Gallons of Water per year	Acre-feet of Water per year
Single-Use Plastic	2,031,232,707	0.0387	78,540,998.00	241.00

Source: Boustead Consulting and Associates Ltd. 2007. Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper. Prepared for Progressive Bag Affiliates; Ordinances to Ban Plastic Carryout Bags in Los Angeles County FEIR (SCH#2009111104, November 2010).

Wastewater

Wastewater generated within the City is collected and treated by the Bureau of Sanitation's (BOS) wastewater conveyance and treatment systems. The BOS operates and maintains the wastewater collection and treatment for the City and 29 contract cities and agencies. The City's

[135] Boustead Consulting and Associates Ltd. 2007. Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper.

sewage system is comprised of the Hyperion Treatment Plant Service Area (HSA), the Terminal Island Treatment Plant Service Area, and more than 6,700 miles of public sewers which convey approximately 400 million gallons per day (mgd) of wastewater[136]. The City's public sewers serve a population of over 4 million persons.

Wastewater Treatment

City wastewater is treated at the Hyperion Treatment Plan (HTP), the Terminal Island Water Reclamation Plant (TIWRP), the Donald C. Tillman Water Reclamation Plant, the Los Angeles - Glendale Water Reclamation Plant, and a small amount of wastewater is treated at the County of Los Angeles' Sanitation Districts' Joint Water Pollution Control Plan in Carson (Table 3.11-3)[137]. With the exception of the Harbor area, the majority of the City's wastewater conveyance and treatment is served by the Hyperion Sanitary Sewer System. Wastewater in the Hyperion Sanitary Sewer system is treated at the HTP.

The HTP is located in the community of Playa Del Rey and has a treatment capacity of 450 mgd and its solids handling facilities can process approximately 468 dry tons of solids per day[138]. The HTP performs both primary treatment (i.e., the removal of large objects) and secondary treatment of wastewater (i.e., degradation of biological content)[139,140].

Table 3.11-3
Wastewater Treatment/Reclamation Plants Summary

Wastewater Treatment/Reclamation Plant	Treatment Level	Capacity (mgd)	Average Flows (mgd)
Donald C. Tillman Water Reclamation Plant	Tertiary to Title 22 Standards with Nitrification/Dentrification	80	67
Los Angeles - Glendale Water Reclamation Plant	Tertiary to Title 22 Standards with Nitrification/Dentrification	20	20
Terminal Island Water Reclamation Plant	Tertiary; Advanced treatment (MF/RO) of 5mgd	30	17.5
Hyperion Treatment Plant	Full secondary	450	362
Source: City of Los Angeles Department of Public Works, Bureau of Sanitation, About Wastewater website, http://www.lacitysan.org/wastewater/factsfigures.htm			

Treated wastewater from the HTP is discharged into the Santa Monica Bay through a 5-mile outfall pipe. All discharges into the Santa Monica Bay are regulated by the Nation Pollutant Discharge Elimination System (NPDES) permit (number CA0109991). The HTP outfall discharges primary and secondary treated wastewater at a depth of 187 feet. The HTP also has a

[136]City of Los Angeles Department of Public Works, L.A Sewers, About Treatment Plants website, http://www.lasewers.org/treatment_plants/about/index.htm
[137]City of Los Angeles Department of Public Works, Bureau of Sanitation, About Wastewater website, http://www.lacitysan.org/wastewater/factsfigures.htm
[138]Ibid.
[139]Ibid.
[140]City of Los Angeles Department of Public Works, Bureau of Sanitation, City of Los Angeles Integrated Resources Plan, December, 2006.

1-mile outfall which is in standby condition in case of an emergency. A small remaining portion of wastewater is reused to recharge barrier walls. Treated sewer sludge, or biosolids are not discharged into the Santa Monica Bay. Biosolids are primarily reused in agriculture[141].

Wastewater Generation Associated with Single-Use Plastic Bags

Various studies have estimated wastewater generation associated with single-use plastic, paper and reusable bags manufacturing to determine a per bag wastewater use rate. The Ecobilan study determined that per 9,000 liters of groceries, the manufacture of plastic bags would generate 50 liters of wastewater, while the manufacture of paper bags would generate 130.7 liters of wastewater and the manufacture of reusable bags (assuming they are used 52 times per year) would generate 2.63 liters of wastewater. Table 3.11-4 shows the existing wastewater generation associated with the manufacture of the approximately 2.03 billion single-use plastic bags currently used in the City annually. As shown, the manufacture of single-use plastic bags currently generates approximately 114,343 gallons of wastewater per day (or 0.11 mgd). Since no manufacturing facilities are located in the City, wastewater generation associated with single-use plastic bag use does not directly affect any wastewater conveyance or treatment facilities in the City.

Table 3.11-4
Current Wastewater Generation Associated with Single-Use Plastic Bags based on Ecobilan Data

	Number of Single-Use Plastic Bags	Gallons of Wastewater per bag	Gallons of Wastewater per day	Wastewater (mgd)
Single-Use Plastic	2,031,232,707	0.0205	114,342.90	0.11

Source: Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France; and Ordinances to Ban Plastic Carryout Bags in Los Angeles County FEIR (SCH#2009111104, November 2010).

Solid Waste

Approximately 2.03 billion single-use plastic bags are used in the City per year. Despite efforts to implement recycling programs, only about 5% of the plastic bags in California and nationwide are currently recycled[142]. Therefore, the majority of single-use plastic bags are disposed in a landfill. In addition, due to the lightweight nature of single-use plastic bags, many end up as litter, and studies have found that plastic accounts for up to 90% percent of trash, and single-use disposable plastic bags make up a large portion of the litter in streams, rivers, and the ocean[143].

The Bureau of Sanitation (BOS) and private waste management companies are responsible for the collection, disposal, and recycling of solid waste in the City. Solid waste generated by single-family and some multi-family residences is collected by BOS[144]. Remaining multi-family residences and all industrial and commercial buildings contract with private waste haulers to collect, dispose, and recycle their solid waste.

[141] *Ibid.*
[142] US EPA, 2005; Green Cities California MEA, 2010; and Boustead, 2007
[143] CalRecycle. Shopping? Take Reusable Bags! (Nov 23. 2011), http://www.calrecycle.ca.gov/publiced/holidays/ReusableBags.htm
[144] City of Los Angeles General Plan, The Citywide General Plan Framework: An Element of The City of Los Angeles General Plan, August 2001.

Refuse collected by BOS is sent for disposal to any of the following landfills: Antelope Valley, Calabasas, Chiquita, Lancaster, Puente Hills, Scholl Canyon, and Sunshine Canyon Landfills. Table 3.11-5 lists the location, permitted capacity, remaining capacity, permitted daily intake capacity, the average daily volume of solid waste disposed of at the landfills serving the City of Los Angeles, and the approximate tons per day of solid waste that the City of Los Angeles disposed of at each landfill. As shown therein, the City of Los Angeles primarily uses the Sunshine Canyon and Chiquita Canyon landfills. Refuse collected by private haulers is disposed of at the same landfills, and at the waste-to-energy facilities listed in Table 3.11-5. The Class III landfills accepting waste from the City have a total daily intake capacity of 41,700 tons per day and a remaining capacity of 121 million tons.

Table 3.11-5
Solid Waste Facilities Serving the City of Los Angeles

Facility Name	Location	Closure Date	Remaining Capacity (tons) /a/	Permitted Daily Intake Capacity (tons/day)	2011 Average Daily Disposal (tons/day)	Amount of Solid Waste from the City of Los Angeles (tons/day)
CLASS III LANDFILLS						
Antelope Valley	Palmdale	1/1/2019	16,093,000	1,800	365	19
Calabasas	Agoura	9/30/2025	5,712,000	3,500	779	413
Chiquita Canyon	Valencia	11/24/2019	4,900,000	6,000	4,264	2,428
Lancaster	Lancaster	12/31/2012	309,400	1,700	809	349
Puente Hills	Industry	10/31/2013	7,550,400	13,200	5,116	419
Sunshine Canyon	LA City & County	2/6/2037	82,389,030	12,100	7,801	4,272
Scholl Canyon	Glendale	12/31/2024	3,618,000	3,400	747	8
Total Class III Landfills			**120,571,830**	**41,700**	**19,881**	**7,908**
INERT WASTE FACILITIES AND OTHER REFUSE FACILITIES						
Azusa Land Reclamation	Azusa	1/1/2025	64,215,000	6,500	357	517
Commerce Refuse-to-Energy	Commerce	N/A	466,000,000	1,000	464	103
Peck Road	Monrovia	N/A	11,250,000	1,210	0	38
Southeast Resource Recovery Facility	Long Beach	N/A	1.6 billon	2,240	1,572	87
Total Inert Waste and Other Refuse Facilities			**2.13 billion**	**10,950**	**2,393**	**745**

/a/ The remaining capacity is as of December 31, 2011.

Source: County of Los Angeles Department of Public Works, *Countywide Integrated Waste Management Plan – 2011 Annual Report*, October 2012; County of Los Angeles Department of Public Works, Solid Waste Information Management System, Detailed Solid Waste Disposal Activity Report by Jurisdiction of Origin website, http://dpw.lacounty.gov/epd/swims/disposal/reports.aspx,.

In 2011, approximately 2.99 million tons of solid waste originating in the City was disposed of at the landfills and other solid waste facilities listed in Table 3.11-5[145].

Numerous studies have been conducted to determine a solid waste rate per single-use plastic (carryout) bag. Utilizing EPA recycling rates and Ecobilan data, it is determined that a single-use plastic bag would generate 0.0074 kilograms (kg) of solid waste per bag. When using EPA recycling rates in conjunction with Boustead data, it is determined that single-use plastic bags would generate 0.0047 kg of waste per bag. It should be noted that reusable plastic bags are not included in Boustead approximations. Utilizing these studies, Tables 3.11-6 and 3.11-7 estimate the amount of solid waste associated with single-use plastic bags within the City.

Table 3.11-6
Current Solid Waste Generation Associated with Single-Use Plastic Bags based on Ecobilan Data

Number of Single-Use Plastic Bags Per Year	5% Recycling Rate/a/	Solid Waste per Bag (kg)	Solid Waste per Year (tons)
2,031,232,707	1,929,671,072	0.0074	15,741

Sources: /a/ Green Cities California MEA, March 2010
Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France; and Ordinances to Ban Plastic Carryout Bags in Los Angeles County FEIR, November 2010.

Table 3.11-7
Current Solid Waste Generation Associated with Single-Use Plastic Bags based on Boustead Data

Number of Single-Use Plastic Bags Per Year	5% Recycling Rate/a/	Solid Waste per Bag (kg)	Solid Waste per Year (tons)
2,031,232,707	1,929,671,072	0.0047	9,998

Sources: /a/ Green Cities California MEA, March 2010
Boustead Consulting and Associates Ltd. 2007. Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper. Prepared for Progressive Bag Affiliates; Ordinances to Ban Plastic Carryout Bags in Los Angeles County FEIR; and Ordinances to Ban Plastic Carryout Bags in Los Angeles County FEIR, November 2010.

As indicated, single-use plastic bags within the City generate approximately 15,741 tons of solid waste per year, based on the Ecobilan data, and 9,998 tons of solid waste per year based on Boustead data.

Regulations Applicable to the Project

A wide range of existing laws and regulations govern water, wastewater, and solid waste. The laws and regulations most applicable to the proposed project include:

[145]County of Los Angeles Department of Public Works, Solid Waste Information Management System, Detailed Solid Waste Disposal Activity Report by Jurisdiction of Origin website, *http://dpw.lacounty.gov/epd/swims/disposal/reports.aspx*

Senate Bill 1219. Senate Bill 1219 (Chapter 384, Statutes of 2012 extended the recycling requirements of a former AB 2449 until January 1, 2020. AB 2449 (Chapter 845, Statutes of 2006) states that affected stores must supply at least one plastic bag collection bin in a publicly accessible spot to collect used bags for recycling. The store operator must also make reusable bags available to shoppers for purchase. AB 2449 applies to retail stores of over 10,000 square feet that include a licensed pharmacy and to supermarkets (grocery stores with gross annual sales of $2 million or more that sell dry groceries, canned goods, nonfood items, or perishable goods). Stores are required to maintain records of their compliance and make them available to CalRecycle or local jurisdiction.

California Integrated Waste Management Act. The California Integrated Waste Management Act required each local city and county governing body to divert 50% of all solid waste by January 1, 2000, through source reduction, recycling, and composting activities, and required the participation of the residential, commercial, industrial, and public sectors. The Act also declares that the lack of adequate areas for collecting and loading recyclable materials that are compatible with surrounding land uses is a significant impediment to diverting solid waste and constitutes an urgent need for State and local agencies to address access to solid waste for source reduction, recycling, and composting activities.

Executive Order S-06-08. In 2008, California Governor Arnold Schwarzenegger issued Executive Order S-06-08, which declared that there is a Statewide drought and encouraged local water districts and agencies to "reduce water consumption locally and regionally. In response to the Executive Order, the City and the Los Angeles Department of Water and Power (LADWP) amended and implemented by ordinance the Emergency Water Conservation Plan (EWCP).

Urban Water Management Planning Act. The Urban Water Management Planning Act requires urban water suppliers to develop water management plans to actively pursue the efficient use of available supplies. Every five years, water suppliers are required to develop Urban Water Management Plans (UWMPs) to identify short-term and long-term water demand management measures to meet growing water demands. The LADWP, as a water supplier, has prepared and adopted an UWMP. The latest LADWP UWMP was completed in the year 2010.

Water Conservation Act. The Water Conservation Act was enacted requiring water agencies to reduce per capita water use by 20% by 2020 (known as 20x2020). This includes increasing recycled water use to offset potable water use. Water suppliers are required to set a water use target for 2020 and an interim target for 2015 using one of four methods stipulated in the Act. Failure to meet adopted targets will result in the ineligibility of a water supplier to receive water grants or loans administered by the State. In compliance with the Act, LADWP has calculated its baseline per capita water use, its urban use target for 2020, and its interim water use target for 2015. Table 3.11-8 details the results of LADWP's calculations.

Table 3.11-8
20x20 Base and Target Data for Water Use per Capita

20x2020 Required Data	**Gallons Per Capita per Day (GPCD)**
BASE PER CAPITA DAILY WATER USE	
10-Year Average /a/	152
5-Year Average /b/	145
2020 TARGET USING METHOD 3 /c/	

Table 3.11-8 20x20 Base and Target Data for Water Use per Capita	
20x2020 Required Data	**Gallons Per Capita per Day (GPCD)**
95% of Hydrologic Region Target (149 gpcd)	142
95% Of Base Daily Capita Water Use 5-Year Average (145 gpcd)	138
Actual 2020 Target	138
2015 Interim Target	145
/a/ Ten-year average based on fiscal year 1995/96 to 2004/05 /b/ Five-year average based on fiscal year 2003/04 to 2007/08 /c/ Methodology requires smaller of two results to be actual water use target to satisfy minimum water use target. **S** Source: LADWP Urban Water Management Plan 2010, Chapter Three: Water Conservation, Exhibit 3C, page 52.	

City of Los Angeles General Plan (Framework). The Framework is a general, long-term, programmatic document with goals, objectives and policies that are implemented by the various individual elements of the City of Los Angeles General Plan. The goals, objectives, and policies of the Framework related to water supply, storage, and delivery infrastructure most relevant to the proposed project are listed in Table 3.11-9.

Table 3.11-9
Relevant General Plan Water Supply Goals, Objectives and Policies

Goal/Objective/Policy	Description
Goal 9C	Adequate water supply, storage facilities, and delivery system to serve the needs of existing and future residents and businesses.
Objective 9.8	Monitor and forecast water demand based upon actual and predicted growth.
Policy 9.8.1	Monitor water usage and population and job forecasts to project future water needs.
Objective 9.9	Manage and expand the City's water resources, storage facilities, and water lines to accommodate projected population increases and new or expanded industries and businesses.
Policy 9.9.1	Pursue all economically efficient water conservation measures at the local and statewide level.
Policy 9.9.2	Develop reliable and cost-effective sources of alternative water supplies, including water reclamation and exchanges and transfers.
Policy 9.9.3	Protect existing water supplies from contamination, and clean up groundwater supplies so those resources can be more fully utilized.
Policy 9.9.4	Work to improve water quality and reliability of supply from the State Water Project and other sources.
Policy 9.9.5	Maintain existing rights to groundwater and ensure continued groundwater pumping availability.
Policy 9.9.9	Clean or replace where necessary, deficient water distribution lines in the City.
Objective 9.10	Ensure that water supply, storage, and delivery systems are adequate to support planned development.
Policy 9.10.1	Evaluate the water system's capability to meet water demand resulting from the Framework Element's land use patterns.
Source: City of Los Angeles, The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, re-adopted 2001.	

Emergency Water Conservation Plan (EWCP). The City's EWCP is found in LAMC Chapter XII, Article I. The purpose of the EWCP is to provide a mandatory water conservation plan to minimize the effect of a water shortage to City water users. The provisions outlined within the EWCP are intended to significantly reduce the consumption of water over an extended period of time, thereby extending the available water required for the City water users while reducing the hardship of the City and the general public to the greatest extent possible. The EWCP contains five water conservation phases which correspond to the levels of severity of water shortage, with more stringent water conservation measures to be implemented in each successive phase[146].

Impact Criteria

The proposed project would result in a significant impact on utilities and service systems if it would:

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or needing new or expanded entitlements
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments; and/or
- Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs

Environmental Impact

The City of Los Angeles currently uses approximately 2,031,232,707 single-use plastic bags per year. Under a conservative scenario, the proposed ordinance may result in 5% of the existing single-use plastic bag usage to continue; 30% of plastic bags to be replaced with 40% post-consumer content paper bags; and 65% percent to be replaced with reusable bags.

Water

The proposed ordinance would increase the use of reusable bags as a result of banning the mass distribution of single-use plastic carryout bags by retailers. There are no manufacturing facilities of single-use paper bags within the City. Therefore, manufacturing facilities would not utilize LADWP's water supply.

[146]LADWP, Fact Sheet: Revised Water Conservation Ordinance, 2010.

The plastic bag industry has contended that the reusable bags could create unhygienic environments and promote food-borne illnesses unless laundered regularly; however, reusable bags do not require special washing care and would likely be washed on a regular basis along with a household's regular laundry load[147]. Since few if any families have (or are likely to ever have) a large supply of reusable shopping bags that would require laundering all at once, it is anticipated that the reusable bags would be washed in regular laundry loads as needed. This would not result in increased water use, as the wash loads would occur with or without the bags and such bags are not washed often (typically once a month). Additionally, most of the new reusable bags distributed by retailers and others are made from plastics that can be easily cleaned with a damp sponge. Nonetheless, in order to consider the most conservative, albeit unlikely, scenario, this analysis assumes that up to 25% of all reusable bags would be washed separately by hand instead of along with a household's regular laundry, resulting in a potential increase in the City water demand (Table 3.11-10) of approximately 234 acre-feet per year.

Table 3.11-10
Water Use from Reusable Bag Cleaning

Number of Additional Reusable Bags Washed by Hand	Number of times washed per year /a/	Gallons of Water per Wash	Total Gallons per Year	Acre Feet per Year (AFY)
6,347,602	12	1	76,171,227	**233.8**
/a/ Assumes that each bag is washed once a month.				

The total existing water supply of LADWP is approximately 480,302 acre-feet per year and is projected to be approximately 701,200 acre-feet per year by year 2030. Based on LADWP water supply estimates, this conservative estimate of additional water demand associated with reusable bag hand washing would represent approximately 0.0005% percent of the current supply and 0.0003% of the projected 2030 supply. Thus, the potential increase in water demand due to implementation of the proposed ordinance is within the capacity of LADWP's water supply and the impact would be less than significant.

Wastewater

The manufacture of single-use bags produces wastewater. However, because there are no known carryout bag manufacturing facilities located within the City, the use of single-use plastic bags does not currently affect wastewater conveyance or treatment facilities serving the City.

Assuming that 100% of the water used to handwash reusable bags would become wastewater, approximately 0.209 mgd would enter the sewer system and require treatment at the City's treatment plants. As discussed above, the existing remaining capacity of sewer treatment plants serving the City is approximately 113.5 mgd. This represents about 0.0018% percent of the available capacity of City treatment plants. This additional wastewater generation would not exceed the remaining capacity of the treatment plants. There is adequate capacity to treat the additional wastewater that may result from the proposed ordinance under this conservative scenario, and no new facilities would be necessary. Therefore, impact would be less than significant.

[147]Green Cities Master Environmental Assessment, March 2010.

Solid Waste

The proposed ordinance does not involve any physical development. However, use of carryout bags would require disposal at the end of use. Table 3.11-10 represents a theoretical worst-case scenario estimate of the change in solid waste generation that could result from the proposed ordinance using the Ecobilan and the Boustead data.

Table 3.11-11
Solid Waste Due to Carryout Bags based on Ecobilan and Boustead Data

Type of Bags	Number of Bags	Solid Waste per Bag per Day (kg)	Solid Waste per Year (short tons)
Ecobilan Data			
Plastic/a/	96,483,553	0.0074	784
Paper	609,369,812	0.0087	5,844
Reusable (used 52 times per year)	25,390,409	0.0010	28
		Total	6,656
		Existing	*9,998*
		Net Change	**-3,342**

Boustead Data			
Plastic/a/	96,483,553	0.004	426
Paper	609,369,812	0.021	14,106
		Total	14,532
		Existing	*9,998*
		Net Change	**4,534**
/a/ Including 5% recycling rate, Green Cities California MEA. March 2010.			

Based on the Ecobilan data, the proposed ordinance could result in a reduction of approximately 3,342 tons per year of solid waste, while based on the Boustead data there could be an increase of approximately 4,534 tons per year of solid waste, primarily due to this methods evaluation of paper bag waste. This increase would represent 0.003% of the remaining capacity of all Class III landfills serving the City.

However, according to the County of Los Angeles announcement on the first year of implementing the County's Single Use Bag Ordinance, 125,000 paper bags were provided per large store compared to approximately 2.2 million plastic bags and 196,000 single-use paper bags provided per store annually prior to the ordinance going into effect in the third quarter of 2011. Single-use paper carryout bag usage continues to decline with an overall reduction of 34% between 2009 and the first quarter of 2012, including a nearly 13% reduction occurring within the first three quarters of the year following the enactment of the ordinance[148]. The City of Los Angeles is part of the Los Angeles county and it is anticipated that the City would have a similar reduction in single-use paper bag usage following the implementation of the proposed ordinance. Also, the City's has a successful comprehensive program of diverting solid waste from landfills and has achieved a diversion rate of 72% as of December 31, 2012. Paper products, including paper grocery bags, are part of the diverted solid waste. Therefore, considering the reported 13%

[148] County of Los Angeles, About the Bag, Announcements: September 2012, http://dpw.lacounty.gov/epd/aboutthebag/index

reduction in single-use paper bag usage and the 72% diversion rate achieved by the City, the total amount of solid waste would be approximately 2,570 tons per year versus 9,998 tons of waste per year associated with the current use of single-use plastic carryout bags, resulting in a reduction of approximately 7,428 tons of solid waste per year. Therefore, the proposed ordinance is anticipated to result in a beneficial impact on the landfills the City uses for disposal of solid waste.

Mitigation Measures

Impacts related to water and wastewater would be less than significant, and impact related to solid waste is anticipated to be beneficial. No mitigation measures are required.

Level of Impact after Mitigation

Impacts related to water and wastewater would be less than significant, and impact related to solid waste is anticipated to be beneficial. No mitigation measures are required.

Cumulative Impact

Water

Similar to the proposed ordinance, other adopted and pending ordinances may incrementally increase water use associated with washing of reusable bags for hygienic purposes. However, based on the potential incremental water use of approximately 234 acre-feet per year with the proposed ordinance (if up to 25% of the reusable bags are washed separately and not as part of a household's regular laundry load), other ordinances would not be expected to generate an increase in water that would exceed water supplies in their respective regions. In addition, because other agencies may have separate water supplies than those that serve the City, the proposed ordinance's increase in water demand would not impact water supplies in those areas. Therefore, the proposed ordinance would not result in a cumulatively considerable contribution to water demand, and impact related to water would not be cumulatively considerable.

Wastewater

Similar to the proposed ordinance, other adopted and pending ordinances may incrementally increase wastewater associated with washing of reusable bags. However, based on the potential incremental increase in wastewater associated with the proposed ordinance (approximately 0.209 mgd), other ordinances would not be expected to generate an increase in wastewater that would exceed the capacity of a wastewater treatment plant or require new or expanded facilities within their respective regions. In addition, because other agencies may have separate treatment plants than those that serve the City, the proposed ordinance's increase in wastewater would not impact treatment plants in those areas. Therefore, the proposed ordinance would not result in a cumulatively considerable contribution to wastewater generation and impact related to wastewater would not be cumulatively considerable.

Solid Waste

While other adopted and pending ordinances may incrementally increase solid waste associated with carryout bags based on the Boustead study, however, based on discussion above, these ordinances may actually result in a reduction of solid waste based on the Ecobilan study and on each jurisdiction's waste reduction programs and diversion rates. Based on the County of Los Angeles data and the City of Los Angeles current recycling rate, the proposed ordinance is anticipated to reduce the amount of solid waste by approximately 7,428 tons per year. Therefore, the proposed ordinance is anticipated not to contribute to cumulative solid waste generation.

4.0 Alternatives to the Project

The following discussion considers alternatives to the proposed City of Los Angeles Single-Use Carryout Bag Ordinance project. Through comparison of these alternatives, the relative advantages of each can be weighed and analyzed.

The CEQA Guidelines state that an EIR need not consider every conceivable alternative to the project [Section 15126.6(a)], or an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative [Section 15126.6(f)(3)]. The Guidelines require that a range of alternatives be addressed "governed by 'a rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The discussion of alternatives must focus on alternatives that are potentially feasible and capable of achieving major project objectives while avoiding or substantially lessening any significant environmental effects of the project [CEQA Guidelines, Section 15126.6(f)].

Primary City objectives for the proposed ordinance project are to:

- Reduce the billions of single-use plastic carryout bags currently consumed in the City of Los Angeles each year;
- Reduce the adverse environmental impacts associated with single-use plastic carryout bags, including impacts to air quality, biological resources (including marine environments), water quality, and solid waste;
- Deter the use of single-use paper carryout bags by retail customers in the City;
- Promote a shift toward the use of reusable carryout bags; and
- Reduce litter and the associated adverse impacts to stormwater systems, aesthetics, and the marine environment.

The analysis in the EIR indicates that the proposed ordinance project would result in beneficial impacts with regard to air quality, biological resources, and hydrology and water quality. The project was found to result in either a less than significant impact or no impact on other environmental factors analyzed in the EIR. Therefore, the discussion of the alternatives to the proposed project focuses on the alternatives that could achieve the project objectives to a greater extent and/or more rapidly.

The alternatives considered and compared to the project in the EIR include:

Alternative 1: "No Project" alternative required by CEQA

Alternative 2: Ban both Plastic and Paper Single-Use Carryout Bags

Alternative 3: Impose a Higher Fee on Single-Use Paper Carryout Bags

Alternative 4: Proposed Ordinance Without a Grace Period

Alternative 5: Impose a Fee on Single-Use Plastic Carryout Bags

Alternative 1: No Project

The No Project alternative, required to be evaluated in the EIR, considers "existing conditions…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" [CEQA Guidelines Section 15126.6(e)(2)].

Pursuant to this alternative, the proposed ordinance would not be adopted and implemented. As a result, the existing use of single-use plastic carryout bags in the City of Los Angeles would remain unchanged with the corresponding adverse environmental effects remaining at current levels. The existing conditions are described in the Environmental Setting section of each environmental issue analyzed in the EIR. Leaving the consumption of single-use plastic carryout bags at 2,031,232,707 or more annually would not achieve any of the City's objectives for the project.

Alternative 2: Ban both Plastic and Paper Single-Use Carryout Bags

The proposed ordinance would ban single-use plastic carryout bags and institute a $0.10 fee at the point of sale for a paper single-use carryout bag at the specified retailers within the City. This alternative considers a ban on both plastic and paper single-use carryout bags.

Bag Use Effects

The proposed ordinance was assumed to result in the 95% reduction in single-use plastic carryout bags consumed in the City, with 5% of plastic bags remaining since the proposed ordinance applies to specified, and not all, retail stores. The plastic bags were conservatively assumed to be replaced by approximately 30% paper bags and 65% reusable bags.

Pursuant to Alternative 2, the use of single-use plastic carryout bags in the City would also be reduced by 95%, and 5% of the plastic bags would remain in use. However, the plastic bags would be replaced solely with reusable bags. As shown in Table 4-1, this alternative would result in an 81% reduction in the annual volume of carryout bags when compared to the proposed ordinance.

Table 4-1
Estimated Bag Use Alternative 2 versus Proposed Ordinance

Type of Bag	Alternative 2*	Proposed Ordinance**	Explanation
Single-Use Plastic	101,561,635	101,561,635	Because the proposed ordinance does not apply to all retailers, some single-use plastic bags would remain in circulation.
Single-Use Paper	0	609,369,812	Although the volume of a single-use paper carryout bag is generally 150% of the volume of a single-use plastic carryout bag and fewer paper bags would be needed to carry the same number of items, it is conservatively assumed that paper would replace plastic at a 1:1 ratio.
Reusable	37,109,059	25,390,409	Although a reusable bag is designed to be used up to hundreds of times, it is conservatively assumed that a reusable bag would be used by a customer only once per week for one year (52 times).
Total	**138,670, 694**	**736,321,856**	

*Based on an assumption of 5% existing plastic bags use in the City remaining, and 95% conversion to reusable bags
**Refer to Table 3.1-5 in Section 3.1, Air Quality

Environmental Effects

With the proposed ordinance, the increased use of reusable carryout bags in the City would reduce air pollutant emissions that contribute to ground level ozone by approximately 54%, and emissions that contribute to atmospheric acidification by approximately 34%. In comparison, Alternative 2 would reduce emissions that contribute to ground level ozone by approximately 92% and emissions that contribute to atmospheric acidification by approximately 90% (see Table 4-2). As such, Alternative 2 would be about twice as effective in reducing air pollutant emissions, resulting in a proportionally greater beneficial impact on air quality.

Table 4-2
Alternative 2 Emissions that Contribute to Ground Level Ozone and Atmospheric Acidification (AA)

Bag Type	Number of Bags Used per Year	Ozone Emissions Rate per Bag	Ozone Emissions (kg) per 1,000 Bags	Ozone Emissions per Year (kg)	AA Emission Rate per Bag	AA Emissions (kg) per 1,000 Bags	AA Emissions per Year (kg)
Single-Use Plastic	101,561,635	1.0	0.023	2,336	1.0	1.084	110,093
Single-Use Paper	0	1.3	0.03	0	1.9	2.06	0
Reusable	37,109,059	1.4	0.032	1,187	3.0	3.252	120,717
Alternative 2 Total				**3,523**			**230,810**
Proposed Ordinance Total				**21,429**			**1,447,965**
Alternative 2 Net Change vs. Proposed Ordinance (Difference)				**(17,906)**			**(1,217,155)**
Existing Total				**46,718**			**2,201,856**
Alternative 2 Net Change vs. Existing (Difference)				**(43,195)**			**(1,971,046)**

Source: Refer to Table 3.1-6 in Section 3.1, Air Quality.

Also, in comparison with the proposed ordinance, Alternative 2 would result in a substantial reduction in greenhouse gases emissions (GHG). As shown in Table 4-3, this alternative would reduce greenhouse gas emissions by more than 92% in comparison to the proposed ordinance and by approximately 88% in comparison to the existing conditions and thus, would result in an additional significant beneficial impact.

Table 4-3
Alternative 2 Estimated Greenhouse Gas Emissions

Bag Type	Number of Bags Used per Year	GHG Emissions Rate per Bag	CO_2e Emissions (metric tons)	CO_2e per Year (metric tons)	CO_2e per Person
Single-Use Plastic	101,561,635	1.0	0.04 per 1,500 bags	2,708	0.0008
Single-Use Paper	0	3.3	0.132 per 1,000 bags	0	0.0000
Reusable	37,109,059	2.6	0.104 per 1,000 bags	3,859	0.0007
Alternative 2 Total				**6,567**	**0.0015**
Proposed Ordinance Total				**85,786**	**0.022**
Alternative 2 Net Change vs. Proposed Ordinance (Difference)				**(79,219)**	**(0.0025)**
Existing Total				**54,166**	**0.014**
Alternative 2 Net Change vs. Existing (Difference)				**(47,599)**	**(0.0065)**

Source: Refer to Table 3.3-2 in Section 3.3, Greenhouse Gas Emissions.

In comparison with the proposed ordinance, the ban on both plastic and paper single-use carryout bags would also have a significantly greater beneficial impact on all biological resources, including marine environments, by considerably reducing plastic bag as well as paper bag litter and the associated hazards to sensitive habitats and species.

Similarly, with a ban on paper bags as well as plastic bags, this alternative would have a much greater beneficial impact in reducing waste disposal needs associated with both types of these bags. Consequently, Alternative 2 would result in a much greater beneficial impact on hydrology and water quality by reducing single-use paper bag litter in addition to the plastic bag litter that could enter storm drains and waterways, as well as the potential water quality impacts associated with the manufacturing of these bags for use in the City. As this alternative would result in an 81% reduction in the annual volume of carryout bags when compared to the proposed ordinance, and would eliminate single-use paper bags (a 100% reduction) at specified retailers, it would substantially reduce overall impacts to water quality associated with bag manufacturing, including indirectly reducing the potential for harmful compounds to be discharged into groundwater supplies during the manufacturing process.

Alternative 2 would eliminate single-use paper bags and thus would promote the shift towards reusable bags to a greater extent than the proposed ordinance. The reusable bags, same as other household items, are anticipated to be washed along with a household's regular laundry and not result in an increase in water consumption. Nonetheless, even if a quarter of all reusable bags were to be washed separately be hand every month, Alternative 2 would result in a water use of approximately 341 acre-feet of water per year. The total existing water supply of LADWP is approximately 480,302 acre-feet per year and is projected to be approximately 701,200 acre-feet per year by year 2030. Based on LADWP water supply estimates, this conservative estimate of additional water demand associated with reusable bag hand washing would represent approximately 0.0007% percent of the current supply and 0.0005% of the projected 2030 supply. Thus, this potential, albeit unlikely, increase in water demand pursuant to Alternative 2 is within the capacity of LADWP's water supply and impact would be less than significant. Assuming that 100% of the water used to hand wash reusable bags would become wastewater, approximately 0.304 million gallons per day (mgd) would enter the sewer system and require treatment at the City's treatment plants. With the existing remaining capacity of sewer treatment plants serving the City of approximately 113.5 mgd, this represents about 0.0027% percent of the available capacity of City treatment plants. This additional wastewater generation would not exceed the remaining capacity of the treatment plants.

As with the proposed ordinance, this alternative would result in a beneficial effect of reducing solid waste by eliminating single-use paper bags and significantly increasing the use of reusable bags, which are recyclable products.

In terms of traffic, under a theoretical "worst case" scenario where all reusable bags are delivered in separate dedicated loads to the retailers, Alternative 2 would eliminate 1.63 trucks per day (versus an addition of 5.8 trucks per day for the proposed ordinance) from the streets and highway system within the City of Los Angeles, which is a beneficial impact.

Therefore, in comparison to the proposed ordinance, Alternative 2 would result in much greater beneficial environmental impacts, as well as in additional beneficial impacts associated with a net reduction in greenhouse gas emissions and reduction in truck deliveries.

Relation to Project Objectives

This alternative would reduce the billions of single-use plastics carryout bags currently consumed in the City of Los Angeles each year; reduce the adverse environmental impacts associated with single-use plastic carryout bags, including impacts to air quality, biological resources (including marine environments), water quality, and solid waste; substantially reduce the use of single-use paper bags by retail customers in the City; promote a shift toward the use of reusable carryout bags; and reduce litter and the associated adverse impacts to stormwater systems, aesthetics, and the marine environment. Thus, Alternative 2 would not only achieve all of the City objectives, but would achieve these objectives more rapidly and to a greater extent than the proposed ordinance.

Alternative 3: Impose a Higher Fee on Single-Use Paper Carryout Bags

The proposed ordinance stipulates a $0.10 fee on a single-use carryout paper bag at the point of sale; this alternative considers a fee of $0.25 fee per bag.

Bag Use Effects

Pursuant to this alternative, a higher fee of $0.25 per paper bag would be charged at the point of sale to deter the use of single-use paper bags and promote a shift toward the use of reusable bags by retail customers in the City. With a higher fee, it is anticipated that the use of paper bags would be reduced in comparison to the proposed ordinance because of the additional cost of $0.15 per bag.

With a higher fee, it is assumed that the plastic bags would be replaced by approximately 6% paper bags and 89% of reusable bags[149], with 5% of the current volume of plastic bags remaining. As shown in Table 4-4, this alternative would result in a 75% reduction in the annual volume of carryout bags when compared to the proposed ordinance.

Table 4-4
Estimated Bag Use Alternative 3 versus Proposed Ordinance

Type of Bag	Alternative 3	Proposed Ordinance*
Single-Use Plastic	101,561,635	101,561,635
Single-Use Paper	44,179,311	609,369,812
Reusable	34,784,860	25,390,409
Total	**180,525,806**	**736,321,856**
*Refer to Table 3.1-5 in Section 3.1, Air Quality		

[149]City of San Jose Final EIR, October 2010, County of San Mateo Final EIR, January 2012.

Environmental Effects

With the proposed ordinance, the increased use of reusable carryout bags in the City would reduce air pollutant emissions that contribute to ground level ozone by approximately 54%, and emissions that contribute to atmospheric acidification by approximately 34%. In comparison, Alternative 3 would reduce emissions that contribute to ground level ozone by approximately 90% and emissions that contribute to atmospheric acidification by approximately 86% (see Table 4-5). As such, Alternative 3 would be nearly twice as effective in reducing air pollutant emissions, resulting in a proportionally greater beneficial impact on air quality.

Table 4-5
Alternative 3 Emissions that Contribute to Ground Level Ozone and Atmospheric Acidification (AA)

Bag Type	Number of Bags Used per Year	Ozone Emissions Rate per Bag	Ozone Emissions (kg) per 1,000 Bags	Ozone Emissions per Year (kg)	AA Emission Rate per Bag	AA Emissions (kg) per 1,000 Bags	AA Emissions per Year (kg)
Single-Use Plastic	101,561,635	1.0	0.023	2,336	1.0	1.084	110,093
Single-Use Paper	44,179,311	1.3	0.03	1,325	1.9	2.06	91,009
Reusable	34,784,860	1.4	0.032	1,113	3.0	3.252	113,120
Alternative 3 Total				**4,774**			**314,222**
Proposed Ordinance Total				**21,429**			**1,447,965**
Alternative 3 Net Change vs. Proposed Ordinance (Difference)				**(16,655)**			**(1,133,743)**
Existing Total				**46,718**			**2,201,856**
Alternative 3 Net Change vs. Existing (Difference)				**(41,944)**			**(1,887,634)**

Source: Refer to Table 3.1-6 in Section 3.1, Air Quality.

In comparison with the proposed ordinance, Alternative 3 would result in a substantial reduction in greenhouse gases emissions (GHG). As shown in Table 4-6, Alternative 3 would reduce greenhouse gas emissions by approximately 86% in comparison to the proposed ordinance and by approximately 78% in comparison to the existing conditions. Therefore, this alternative would result in an additional significant beneficial impact.

Table 4-6
Alternative 3 Estimated Greenhouse Gas Emissions

Bag Type	Number of Bags Used per Year	GHG Emissions Rate per Bag	CO_2e Emissions (metric tons)	CO_2e per Year (metric tons)	CO_2e per Person
Single-Use Plastic	101,561,635	1.0	0.04 per 1,500 bags	2,708	0.0008
Single-Use Paper	44,179,311	3.3	0.132 per 1,000 bags	5,832	0.0015
Reusable	34,784,860	2.6	0.104 per 1,000 bags	3,618	0.001
Alternative 3 Total				**12,158**	**0.003**
Proposed Ordinance Total				**85,786**	**0.022**
Alternative 3 Net Change vs. Proposed Ordinance (Difference)				**(73,628)**	**(0.019)**
Existing Total				**54,166**	**0.014**
Alternative 3 Net Change vs. Existing (Difference)				**(42,008)**	**(0.011)**
Source: Refer to Table 3.3-2 in Section 3.3, Greenhouse Gas Emissions.					

In comparison with the proposed ordinance, the imposition of higher fee of $0.25 on paper single-use carryout bags would also have a significantly greater beneficial impact on biological resources, including marine environments. As with the proposed ordinance this alternative would substantially reduce the volume of plastic bag litter, but in comparison it would also reduce paper bag litter by 80%, thus reducing the associated hazards to sensitive habitats and species.

With a higher fee on paper bags, this alternative would also have a greater beneficial impact in reducing waste disposal needs associated with both types of these bags by reducing the total volume of paper bags in comparison with the proposed ordinance. Consequently, Alternative 3 would result in a substantially greater beneficial impact on hydrology and water quality by reducing single-use paper bag litter in addition to the plastic bag litter that could enter storm drains and waterways, as well as the potential water quality impacts associated with the manufacturing of these bags. As this alternative would result in a 75% reduction in the annual volume of carryout bags when compared to the proposed ordinance, it would also reduce overall impacts to water quality associated with bag manufacturing, including indirectly reducing the potential for harmful compounds to be discharged into groundwater supplies during the manufacturing process.

By imposing a higher fee on single-use paper bags, Alternative 3 would promote a shift toward reusable bags to a greater extent than the proposed ordinance. The reusable bags, same as other household items, are anticipated to be washed along with a household's regular laundry and not result in an increase in water consumption. Nonetheless, even if a quarter of all reusable bags were to be washed separately be hand every month, Alternative 3 would result in a water use of approximately 320 acre-feet of water per year. The total existing water supply of LADWP is approximately 480,302 acre-feet per year and is projected to be approximately 701,200 acre-feet

per year by year 2030. Based on LADWP water supply estimates, this conservative estimate of additional water demand associated with reusable bag hand washing would represent approximately 0.0007% percent of the current supply and 0.0005% of the projected 2030 supply. Thus, this potential, albeit unlikely, increase in water demand pursuant to Alternative 3 is within the capacity of LADWP's water supply and impact would be less than significant. Assuming that 100% of the water used to hand wash reusable bags would become wastewater, approximately 0.286 million gallons per day (mgd) would enter the sewer system and require treatment at the City's treatment plants. With the existing remaining capacity of sewer treatment plants serving the City of approximately 113.5 mgd, this represents about 0.0025% percent of the available capacity of City treatment plants. This additional wastewater generation would not exceed the remaining capacity of the treatment plants.

As with the proposed ordinance, this alternative would result in a beneficial effect of reducing solid waste by significantly reducing the number of single-use paper bags and increasing the use of reusable bags, which are recyclable products.

In terms of traffic, under a theoretical "worst case" scenario where all bags are delivered in separate dedicated loads to the retailers, Alternative 3 would eliminate 1.13 trucks per day (versus an addition of 5.8 trucks per day for the proposed ordinance) from the streets and highway system within the City; a beneficial impact.

Therefore, overall this alternative would result in greater beneficial environmental impacts in comparison to the proposed ordinance as well as in additional beneficial impacts associated with the reduction in greenhouse gas emissions and truck deliveries.

Relation to Project Objectives

This alternative would achieve all objectives of City of Los Angeles Single-Use Carryout Bag Ordinance. With a higher fee, it is anticipated that the use of single-use paper carryout bags would be reduced in comparison to the proposed ordinance because of the additional cost. As a result, the objective of deterring the use of single-use paper carryout bags would be achieved to a greater extent, and the objective of promoting a shift to reusable bags could occur more rapidly and to a greater extent than under the proposed ordinance.

Alternative 4: Proposed Ordinance Without a Grace Period

The proposed ordinance includes a grace period of six months for large retailers and one year for small retailers to allow retailers to phase out their stocks of plastic carryout bags. During that period, the retailers could continue to provide plastic carryout bags, and would not be required to provide paper carryout bags at no cost to consumers for the purposes of carrying out their purchases.

This alternative, identified during the Notice of Preparation public review process, would eliminate the grace period. As a result, the retailers would begin charging a $0.10 fee for a paper carryout bag at the point of sale at the effective date of the ordinance.

Bag Use Effects

Pursuant to this alternative, the long-term use of carryout plastic, paper, and reusable bags would be the same as with the proposed ordinance. However, without the grace period, this alternative would implement the proposed ordinance immediately, with the corresponding immediate result of eliminating 95% of the single use plastic carryout bags at specified retailers and the corresponding shift toward the use of reusable carryout bags within the City of Los Angeles. As a result, the beneficial environmental impacts associated with the proposed ordinance would be realized more rapidly. This is because the retailers with existing supplies of plastic carryout bags purchased before the proposed ordinance becomes law would be able to use them until their supplies run out, and thus the proposed ordinance is likely to result in a continuation of the use of plastic bags by retailers until the grace period ends. If so, the grace period would in effect delay the implementation of the ban on single-use plastic carryout bags by 6 to 12 months.

Environmental Effects

The long-term environmental impacts of this alternative would be the same as those associated with the proposed ordinance. However, without the grace period, the beneficial environmental impacts associated with the proposed ordinance would be realized more rapidly by preventing the likely use of single-use plastic carryout bags throughout the grace period, which would effectively delay the ban on single-use plastic carryout bags by 6 to 12 months. Therefore, in comparison with the proposed ordinance, this alternative would result in an additional environmental benefit of more rapidly eliminating the adverse environmental impacts associated with the single-use plastic carryout bags.

Relation to Project Objectives

Alternative 4 would achieve all City objectives more rapidly, including deterring the use of single-use paper carryout bags by retail customers in the City, promoting a shift toward the use of reusable carryout bags, and reducing litter – which includes both plastic and paper bag litter - and the associated adverse impacts to stormwater systems, aesthetics, and the marine environment.

Alternative 5: Impose a Fee on Single-Use Plastic Carryout Bags

AB 2449, which prohibits local jurisdiction from imposing fees on single-use plastic carryout bags, expired on January 1, 2013. In September 2012, SB 1219 was signed into law. SB 1219 extended the AB 2449 in-store recycling program requirements until 2020 but eliminated the AB 2449 prohibition on imposition of fees on single-use plastic carryout bags by local jurisdictions. While this alternative considers a fee of $0.25 for single-use plastic bags at the point of sale, Proposition 26 which took effect on November 3, 2010, requires a two-thirds voter approval of such a fee by a local government.

Other countries have instituted fees on single-use plastic carryout bags or are considering similar measures, including Ireland, Italy, Belgium, and Switzerland.

Ireland became the first country to require that retail stores charge for plastic bags[150] by instituting a fee equivalent to about 24 U.S. cents on plastic shopping bags on March 4, 2002. According to the Irish Department of the Environment, Heritage & Local Government, this caused the use of single-use carryout plastic bags to drop from 328 to 21 per person. In 2007, after per capita use rose to 31, the fee was increased to about 35 U.S. cents. (Revenues from the fee are deposited into the Ireland's Environment Fund for waste management, recycling, and other environmental initiatives.)

Before Ireland imposed the fee, the government estimated that retail outlets gave away more than 1.2 billion single-use plastic carryout bags each year. The government states that plastic bag litter has dropped by 95% since it imposed the fee.

Assuming the level of effectiveness of the $0.25 fee per plastic bag is comparable to that reported by Ireland's government after the imposition of such a fee, this alternative could result in up to a 95% reduction in the use of plastic bags in the City of Los Angeles. As a result, the use of carryout bags pursuant to this alternative would be equivalent to that of Alternative 2, whereby the use of single-use plastic carryout bags in the City would also be reduced by 95%, and 5% of the plastic bags would remain in use. However, the plastic bags would be replaced solely with reusable bags. As shown in Table 4-1, this would result in an 81% reduction in the annual volume of carryout bags when compared to the proposed ordinance.

Environmental Effects

Environmental effects pursuant to this alternative would the same as those of Alternative 2. Therefore, in comparison to the proposed ordinance, this alternative would result in much greater beneficial environmental impacts, as well as in additional beneficial impacts associated with a net reduction in greenhouse gas emissions and reduction in truck deliveries.

Relation to Project Objectives

As with Alternative 2, this alternative would not only achieve all of the City objectives, but would achieve these objectives more rapidly and to a greater extent than the proposed ordinance.

[150] http://www.scotland.gov.uk/Publications/2005/08/1993259/33019

Environmentally Superior Alternative

Alternative 2, Ban on Both Single-Use Plastic and Single-Use Paper Carryout Bags and Alternative 5, Impose a Fee on Single-Use Plastic Carryout Bags are considered to be the environmentally superior alternatives to the proposed project because they would result in greater beneficial environmental impacts and in a most rapid achievement of all of the City's objectives for the project. However, these alternatives would be inconsistent with the single-use carryout bag ordinances already enacted throughout California, including those of Cities of San Monica, Manhattan Beach, Malibu, Long Beach, West Hollywood, Laguna Beach, Pasadena, San Jose, San Francisco, Palo Alto, and Calabasas, as well as the Counties of Los Angeles, San Francisco, Santa Clara, San Luis Obispo, Marin, and San Mateo, among others. As such, these alternatives could cause confusion for the customers and present a challenge to the retailers. In addition, imposition of a fee on single-use plastic carryout bags would be subject to Proposition 26 that requires a two-thirds voter approval of such a fee by a local government.

Alternative 3, Impose a Higher Fee on Single-Use Paper Carryout Bags and Alternative 4, Proposed Ordinance Without a Grace Period, are also environmentally superior to the proposed project. In the long term, Alternative 3 could also result in a lower annual use of paper carryout bags due to the additional cost of purchasing those bags, and Alternative 4 would implement the proposed ordinance more rapidly by eliminating the likely 6 to 12-month continuation of the use of plastic carryout bags. Both of these alternatives would achieve all of the City objectives for the project, but to a lesser extent when compared to Alternative 2 and Alternative 5.

5.0 Growth-Inducing and Irreversible Effects

Growth-Inducing Impact

CEQA Guidelines require a discussion of"…ways in which the project could foster economic or population growth…in the surrounding environment," including the project's potential to remove obstacles to population growth. For example, the extension of infrastructure may encourage or facilitate other activities that could induce growth, and the types of projects that provide housing and infrastructure to support additional growth are typically considered to result in growth-inducing effects.

The intent of the proposed ordinance is to significantly reduce the amount of litter in the City attributable to the single-use plastic carryout bags and the associated adverse environmental impacts. The implementation of the proposed ordinance to ban single-use plastic carryout bags in specified retail stores would not result in any changes in the existing land uses or new physical development that could directly or indirectly induce substantial economic or population growth within the City of Los Angeles. While there are no known plastic, paper or reusable bag manufacturing facilities in the City, jobs related to the proposed ordinance, if any, could be filled by the City's existing labor force which currently has an unemployment rate of nearly 10%[151] so the project would not affect the long-term local or regional employment patterns. In addition, revenues generated by sales of paper and reusable carryout bags to customers would remain with the affected stores. Therefore, the proposed ordinance would not result in or contribute to a growth-inducing impact.

Significant Irreversible Effects

The proposed ordinance would ban specified retail establishments in the City from distributing single-use plastic carryout bags, or paper carryout bags at no charge, and would institute a 10 cent ($0.10) charge for each paper carryout bag at the point of sale. The objective of the proposed ordinance is to reduce adverse environmental impacts related to single-use carryout bags and promote a shift toward the use of reusable bags. The implementation of the proposed ordinance to ban single-use plastic carryout bags in specified retail stores would not result in any changes in the existing land uses or new physical development within the City. Therefore, the proposed ordinance would not alter or cause irreversible physical alterations to the existing land resources or their uses.

As discussed in Chapter 3.0, Environmental Impact Analysis, the shift toward reusable bags within the City would not result in any significant adverse impact on environmental resources and would incrementally reduce air pollutant emissions, be consistent with applicable plans, policies, and regulations related to reducing greenhouse gas emissions, and would result in beneficial effects on air quality, biological resources, hydrology and water quality, and solid waste.

[151] http://research.stlouisfed.org/fred2/series/CALOSA7URN, January 2013

6.0 Preparers of the EIR

Lead Agency

City of Los Angeles
Department of Public Works
Bureau of Sanitation
1149 S. Broadway Street, 5th Floor
Los Angeles, CA 90015

Contact Person: Karen Coca, Division Manager
Solid Resources Citywide Recycling Division

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Consultant to Lead Agency

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Joel Wilts-Morris	Environmental Planner, Terry Hayes and Associates

Appendix A
NOP, Initial Study, and Comments Received

NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT (EIR)
FOR THE PROPOSED SINGLE-USE PLASTIC CARRYOUT BAG ORDINANCE

***Proposed Project*:** The City of Los Angeles is proposing to adopt and implement an ordinance to ban the use of single-use plastic carryout bags, charge a fee on paper bags, and promote the use of reusable bags at specified retailers within the City. A six-month grace period would be provided for large retailers and a one-year grace period would be provided for small retailers, which would include a public education component.

The City of Los Angeles has completed an Initial Study which indicates that the proposed project may result in significant impacts and therefore an EIR will be prepared.

***Public Review Period*:** The NOP and Initial Study are available for public review from September 20, 2012 to October 19, 2012. If you would like to comment, please send your written comments so that they are received no later than October 19, 2012 to Karen Coca, Division Manager, Solid Resources Citywide Recycling Division, City of Los Angeles Department of Public Works, Bureau of Sanitation, 1149 S. Broadway, 5th Floor, Los Angeles, CA 90015.

***Public Meetings*:** The Bureau of Sanitation will hold meetings to receive public input on the proposed project and the Initial Study, as follows:

- October 2, 2012, 5:30 pm to 7:30 pm - Deaton Auditorium (in Police Administration Building),100 W. 1st Street, Los Angeles, CA 90015
- October 3, 2012, 5:30 pm to 7:30 pm - Willmington Recreation Center (Multi-Purpose Room), 325 Neptune Ave, Willmington, CA 90744
- October 4, 2012, 5:30 pm to 7:30 pm - Cheviot Recreation Center Auditorium, 2551 Motor Ave, Los Angeles, CA 90064
- October 10, 2012, 5:30 pm to 7:30 pm - Van Nuys City Hall, 14410 Sylvan Street, Van Nuys, CA 91401

***Where to Find the NOP and Initial Study*:** The NOP and Initial Study are available for review at the City of Los Angeles Bureau of Sanitation at 1149 S. Broadway, 5th Floor, Los Angeles, CA 90015, www.lacitysan.org under *What's new…*, and at the following public libraries:

- Central Library, 630 W. 5th Street, Los Angeles, CA 90071
- Van Nuys Branch Library, 6250 Sylmar Ave., Van Nuys, CA 91401
- West L. A. Regional Branch Library, 11360 Santa Monica Bl., Los Angeles, CA 90025
- San Pedro Regional Branch Library, 931 S. Gaffey Street, San Pedro, CA 90731

Initial Study

Single-Use Plastic Carryout Bag Ordinance

City of Los Angeles

Department of Public Works
Bureau of Sanitation

September 2012

PARSONS BRINCKERHOFF

Initial Study

1. **Project Title:** Single-Use Plastic Carryout Bag Ordinance

2. **Lead Agency Name and Address:** City of Los Angeles
Department of Public Works
Bureau of Sanitation
1149 S. Broadway, 5th Floor
Los Angeles, CA 90015

3. **Contact Person and Phone Number:** Karen Coca, Division Manager
Solid Resources Citywide Recycling Division
(213) 485-3644

4. **Project Location:** City-wide within the City of Los Angeles, Los Angeles County (illustrated in Figure 1)

5. **Project Sponsor's Name and Address:** Same as Lead Agency

6. **General Plan Designation:** Various designations throughout the City of Los Angles

7. **Zoning:** Various designation throughout the City of Los Angles

8. **Project Description:** Each year, billions of single-use plastic carryout bags are consumed in the City of Los Angeles (City) and end up in the litter stream, impacting communities and the environment. The City spends millions of dollars each year on prevention, cleanup, and other activities to reduce litter. To address this issue, the City of Los Angeles is proposing to adopt and implement an ordinance to regulate the use of single-use plastic carryout bags and promote the use of reusable bags within the City. The proposed ordinance would:

    1) Ban plastic single-use carryout bags at the point of sale in retail stores and require retailers to provide reusable bags to consumers for sale or at no charge.

    A six-month grace period would be provided for large retailers and a one-year grace period would be provided for small retailers, which would include a public education component and allow retailers to phase-out product stock. The ban would take effect upon completion of the grace period.

2) Mandate a charge on recycled content paper single-use carryout bags at the point of sale in retail stores.

   A grace period of six months for large retailers and one year for small retailers would be provided during which paper bags that are 100 percent recyclable and have at least 40 percent post-consumer content would be provided at no cost to consumers for the purposes of carrying out their purchases. This period would include a public education component. Upon completion of the grace period, retailers would charge ten cents per single-use paper bag having at least 40 percent post-consumer content, which would be retained by the retailer.

The proposed ordinance would apply to the following retail stores in the City:

1. A full-line, self-service retail store with gross annual sales of two million dollars ($2,000,000), or more, that sells a line of dry grocery, canned goods, or nonfood items and some perishable items;

2. A store of at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and that has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or

3. A drug store, pharmacy, supermarket, grocery store, convenience food store, foodmart, or other entity engaged in the retail sale of a limited line of goods that includes milk, bread, soda, and snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

The proposed ordinance would not apply to other types of retail stores such as department stores, clothing stores, and stores that sell durable goods that do not typically distribute large volumes of single-use plastic bags to customers. Also, the retailers would be required to provide at the point of sale, free of charge, paper bags or reusable bags to consumers participating in the California Special Supplemental Food Program for Women, Infants and Children or in the Supplemental Food Program.

The proposed ordinance would not ban plastic or paper bags that are used by customers or the store to protect or contain meat or prepared food; or used for bagging fruits, vegetables, and other fresh produce; or for other goods that must be protected from moisture, damage or contamination; and which are typically placed inside a carryout bag at the point of sale. Pharmacy plastic bags used to carry out prescription drugs would be exempt from the proposed ordinance, as would be other specialty bags, such as dry cleaner bags, and other bags used by retailers for suits, dresses and similar clothing items. Restaurants and other food service providers would continue to provide plastic bags to customers for prepared take-out food and leftovers intended for consumption off

of the premises, as would the vendors at City farmers' markets.

The intent of the proposed ordinance is to reduce the billions of single-use plastic bags currently consumed in the City each year, while promoting the use of reusable bags by retail customers. The City's Bureau of Sanitation (Bureau) has already held many major events promoting the use of reusable bags throughout the City to help raise awareness about the benefits of using reusable bags. Since 2005, the Bureau has purchased and distributed 250,000 reusable bags to encourage shoppers to switch from using single-use carryout bags.

9. **Surrounding Land Uses and Setting:** The City of Los Angeles encompasses 469 square miles stretching from the Angeles National Forest to the north to the Pacific Ocean to the south.

   Adjoining areas include the County of Los Angeles, South Bay, the Gateway Cities, the San Gabriel Valley, and the Foothills. The City of Los Angeles' territory surrounds the cities of Beverly Hills, West Hollywood, and San Fernando, and nearly surrounds the cities of Culver City and Santa Monica.

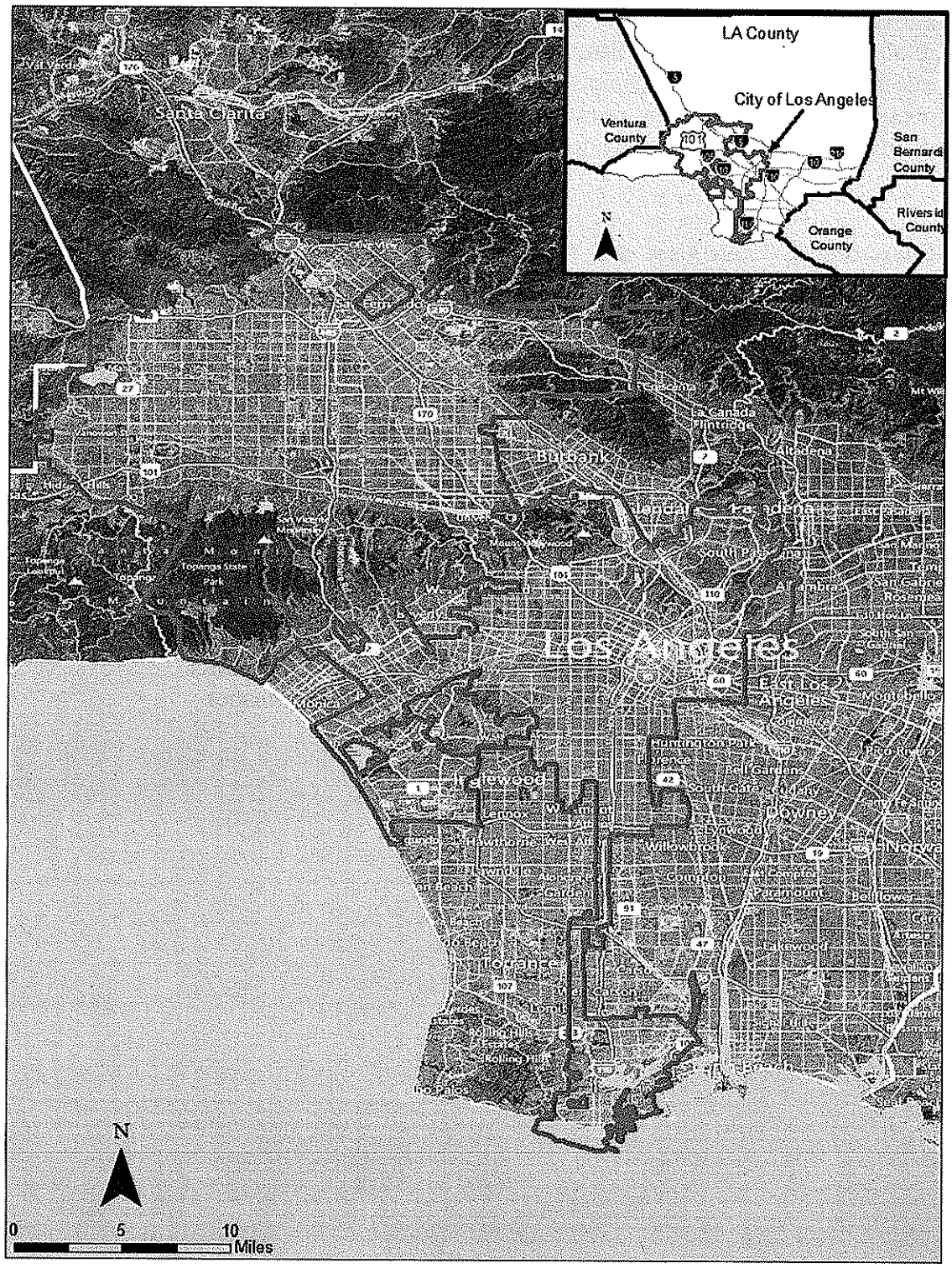
10. **Public agencies whose approval is required:**

    - City of Los Angeles City Council

      Certification of the Final Environmental Impact Report (EIR)
      Adoption of the Single-Use Plastic Carryout Bag Ordinance

No approval from any other public agency is required.

Figure 1
Project Location



Source: UCLA Mapshare, 2012.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☒ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☒ Greenhouse Gas Emissions
☐ Geology /Soils	☒ Hazards & Hazardous Materials	☒ Hydrology / Water Quality
☐ Land Use / Planning	☒ Mineral Resources	☒ Noise
☐ Population / Housing	☒ Public Services	☐ Recreation
☒ Transportation/Traffic	☒ Utilities / Service Systems	☒ Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Kama Cohen — Signature

9-13-12 — Date

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

a through d. The proposed Single-Use Plastic Carryout Bag Ordinance would ban the distribution of single-use plastic carryout bags at the point of sale to customers in Los Angeles by specified retailers, and would create a fee for each paper bag distributed by those retailers after the grace period has passed. The intent of the proposed ordinance is to reduce the amount of single-use plastic carryout bags and to promote the use of reusable bags by retail customers.

The implementation of the proposed ordinance does not include any physical development of structures, changes in existing land uses, or construction activity. Therefore, the proposed ordinance would have no effect on a scenic vista or scenic resources, would not create new sources of substantial light or glare, and would have no potential to substantially degrade the existing visual character of Los Angeles. It is anticipated that the proposed ordinance would result in a beneficial aesthetic effect by reducing litter in and around the city generated by the consumption of single-use plastic carryout bags. No adverse impact would result and these issues will not be addressed further in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement technology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources section 4256) or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☒	☐	☐	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

a through c. The City of Los Angeles is the largest city in California, and with a population of 3.8 million residents, it is the second largest urban area in the nation. The implementation of the proposed single-use plastic carryout bag ordinance would not change the existing land uses nor result in new physical development within the city. The anticipated reduction in the amount of single-use plastic bags consumed in the city each year would not involve any changes to the existing environment that could result in conversion of farmland, including properties under Williamson Act contract, to other uses. No impact on agricultural resources would occur and this issue will not be addressed further in the EIR.

d and e. The implementation of the proposed ordinance may result in an increase in the use of paper bags, which are manufactured with wood pulp and other materials. While such potential increase in use of paper bags, if it occurs, is anticipated to be both temporary and modest, the potential effects on the loss of forest land or conversion of forest land to other uses will be further evaluated in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

a. The City of Los Angeles is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As the local air quality management agency, the SCAQMD monitors air pollutant levels within the air basin and develops and implements strategies to attain the federal and state ambient air quality standards. Presently, the South Coast Air Basin is classified as being in nonattainment for the federal and state standards for ozone and particulate matter (PM_{10} and $PM_{2.5}$). The SCAQMD has adopted the South Coast Air Quality Management Plan (AQMP) that includes goals and strategies to reduce the levels of these pollutants. A project is considered to comply with the AQMP if it is consistent with the regional population growth assumptions of the AQMP. The proposed ordinance would not result in any changes in the existing land uses or new physical development of housing, or otherwise induce people to migrate to Los Angeles from other regions, and thus would not create additional regional population growth beyond that already considered in AQMP. Therefore, the implementation of the proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City would not conflict with nor obstruct the implementation of the AQMP, and this issue will not be addressed further in the EIR.

b and c. The implementation of the proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles would not result in any changes in the existing land uses or new physical development, and therefore would not result in construction activity or the associated temporary construction-related air pollutant emissions. The proposed ordinance is intended to reduce the billions of single-use plastic bags consumed each year in Los Angeles and promote the use of reusable bags. However, the implementation of the proposed ordinance has a potential to change the number of truck trips associated with delivering paper and reusable carryout bags to retailers and other vehicular trips associated with the public education component of the ordinance. Also, while there are no paper bag manufacturing factories within the City, the manufacturing of reusable bags within the South Coast air basin area may generate additional emissions. The potential effects associated with air pollutant emissions related to these activities will be evaluated in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

d. As discussed previously, the implementation of the proposed ordinance has a potential to change the number of truck trips associated with delivering paper and reusable carryout bags to retailers in Los Angeles, and other vehicular trips associated with the public education component of the ordinance, which generate exhaust emissions. It is anticipated that the delivery trucks and vans would utilize major regional freeways and routes (including the I-10, I-210, I-605, I-710 and SR-60, SR-91 and SR-110 freeways) and major arterial streets in the city (including Sepulveda Boulevard, Pico Boulevard, Wilshire Boulevard, Vermont Avenue, and Venice Boulevard) that carry commercial traffic. While the number of these trips is anticipated to be modest, the potential for nearby sensitive receptors; including children, the elderly, or acutely and chronically ill persons, or residential areas, schools, parks, hospitals, or nursing facilities, to be exposed to substantial pollutant concentrations will be addressed further in the EIR.

e. The proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles would not involve any new physical development, construction, or other activity that could generate objectionable odors affecting a substantial number of people. No impact would occur and this issue will not be addressed further in the EIR.

IV. BIOLOGICAL RESOURCES --

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

a through c. The proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles is anticipated to result in an overall beneficial effect on biological resources by reducing litter associated with discarded single-use plastic bags. However, the effects of a potential temporary increase in the use of paper carryout bags and a long-term increase in the use of reusable bags resulting from the implementation of the proposed ordinance on sensitive habitats and species, including wetlands, will be evaluated further in the EIR.

d and e. The implementation of the proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles would not result in any changes in the existing land uses or new physical development or construction activity. The implementation of the proposed ordinance would not alter or remove existing trees, shrubs or other vegetation within the city that may be used for roosting or nesting by native or migratory birds. With no new physical development, construction activity, or changes in existing land uses, the implementation of the proposed ordinance would neither interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites, nor conflict with any local policies or ordinances protecting biological resources, such as the City tree preservation policies or ordinances. No impact would occur and these issues will not be addressed further in the EIR.

f. With no new physical development, construction activity, or changes in existing land uses, the implementation of the proposed ordinance would not conflict with any adopted habitat conservation or natural community conservation plans. No impact would occur. However, the effects of a potential temporary increase in the use of paper bags and a long-term increase in the use of reusable carryout bags resulting from the implementation of the proposed ordinance on sensitive habitats and species will be evaluated further in the EIR.

V. CULTURAL RESOURCES -- Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

a through d. The implementation of the proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles would not result in any changes in the existing land uses, new physical development, or construction activity. Therefore, the implementation of the proposed ordinance would not affect any of the City's existing historic structures or resources, archeological or paleontological resources, or disturb any human remains. No impact would occur and these issues will not be addressed further in the EIR.

VI. GEOLOGY AND SOILS -- Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

a through e. The implementation of the proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles would not result in any changes in the existing land uses, new physical development, or construction activity. Therefore, the implementation of the proposed ordinance would not affect any of the existing geological or soil conditions or characteristics, nor expose people or structures to geologic or soil hazards. No impact would occur and these issues will not be addressed further in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS -- Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

a and b. The implementation of the proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles would not result in any changes in the existing land uses or new physical development, and therefore would not result in construction activity or the associated temporary construction-related greenhouse gas (GHG) emissions. The proposed ordinance is intended to reduce the billions of single-use plastic bags consumed each year in Los Angeles and promote the use of reusable bags. However, the implementation of the proposed ordinance has a potential to change the number of truck trips associated with delivering paper and reusable carryout bags to retailers; generate vehicular trips associated with the public education component of the ordinance; and generate emissions, including GHG emissions, associated with manufacturing of paper and reusable carryout bags. The potential effect associated with GHG emissions related to these activities and the project's consistency with applicable plans and regulations adopted for the purpose of reducing the emissions of GHG will be evaluated in the EIR.

VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐	☐

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

a. The intent of the proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles is to reduce the amount of single-use plastic carryout bags and promote the use of reusable carryout bags. With implementation of the proposed ordinance, the long-term use of reusable bags is anticipated to increase, and the use of single-use paper bags may also temporarily increase. Also, since some people use the single-use plastic carryout bags for lining wastebaskets and other uses, the use of plastic liners and plastic garbage bags may increase. As the manufacturing of paper bags, reusable bags and plastic garbage bags involves use of some hazardous substances, this issue will be addressed further in the EIR.

b through d. The implementation of the proposed ordinance would not result in any changes in existing land uses, or new physical development or construction. Thus, the proposed ordinance would not result in substantial sources of toxics near schools, affect any site on a list compiled pursuant to Government Code Section 65962.5, or result in a reasonably foreseeable upset and accident conditions involving the release of hazardous materials. No impact would occur and these issues will not be addressed further in the EIR.

e and f. The implementation of the proposed ordinance would not result in any changes in the existing land uses, or new physical development. Therefore, no impact on public or private airports within the City, or areas located within an airport land use plan or within two miles of a public airport or public use airport, would occur, and these issues will not be addressed further in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

g and h. The implementation of the proposed ordinance would not result in any changes in the existing land uses, or new physical development or construction. Therefore, the proposed ordinance would not impair implementation nor physically interfere with any adopted emergency response or evacuation plans. No impact would occur and these issues will not be addressed further in the EIR.

h. As the implementation of the proposed ordinance would not result in any changes in the existing land uses, or new physical development or construction, it would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. No impact would occur and these issues will not be addressed further in the EIR.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:

a) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☒	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☒	☐	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

a and f. The intent of the proposed ordinance banning single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles is to reduce the amount of single-use plastic carryout bags consumed in the City each year and promote the use of reusable carryout bags. With the implementation of the proposed ordinance, the use of single-use paper bags may temporarily increase and the long-term use of reusable bags may increase. Also, since some people use the single-use plastic carryout bags for lining wastebaskets and other uses, the use of plastic liners and plastic garbage bags may increase. Manufacturing paper bags, reusable bags, and plastic liners and garbage bags involves the use of some chemicals and raw materials that are hazardous (Green Cities California MEA, 2010). This issue will be evaluated further in the EIR because litter containing these bags may enter storm drains or sewers if such bags are not properly disposed of and affect water quality.

b. The implementation of the proposed ordinance to ban single-use plastic carryout bags would not result in any changes in existing land uses, or new physical development within the City of Los Angeles. However, since the manufacturing process for paper bags and reusable carryout bags uses water, its effect on water supplies, including ground water, will be evaluated further in the EIR.

c through e. No impact on the existing drainage patterns would occur because no changes in the existing land uses and no new physical development would be associated with the proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles. Therefore, this issue will not be addressed further in the EIR.

g through i. The proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles would neither change the existing land uses nor result in new physical development. Therefore, it would not place housing or any other structures within a 100-year flood hazard area. No impact would occur and these issues will not be addressed further in the EIR.

g through j. The proposed ordinance does not involve changes in the existing land uses or new physical development and therefore, would not subject people to inundation by seiche, tsunami, or mudflow. No impact would occur and this issue will not be addressed further in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

a and b. The implementation of the proposed ordinance to ban single-use plastic carryout bags at the point of sale in certain retail stores would not result in any changes in the existing land uses or new development within the City of Los Angeles. The proposed ordinance is intended to reduce the billions of plastic bags that are consumed in the city each year, which has no potential to conflict with adopted City land use plan, policy, or regulation. No impact would occur and this issue will not be evaluated further in the EIR.

c. With no new physical development, construction activity, or changes in existing land uses, the implementation of the proposed ordinance would not conflict with any applicable adopted habitat conservation or natural community conservation plans. No impact would occur and this issue will not be addressed further in the EIR.

XI. MINERAL RESOURCES --
Would the project:

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☒	☐	☐	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

a. The intent of the proposed ordinance banning single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles is to reduce the amount of single-use plastic carryout bags consumed each year and promote the use of reusable carryout bags. With the implementation of the proposed ordinance, the use of single-use paper bags may increase in the short-term and the use of reusable bags may increase in the long-term. Also since some people use the single-use plastic carryout bags for lining wastebaskets and other uses, the use of plastic liners and plastic garbage bags may increase. The manufacturing process for paper bags, reusable bags, and plastic liners and garbage bags involves the use of petroleum. While the proposed ordinance requires paper bags to be 100 percent recyclable and composed of 40 percent postconsumer materials, which would reduce the use of petroleum, this issue will be addressed further in the EIR.

b. With no change in existing land uses and no construction activity associated with the proposed ordinance, no impact with regards to a loss of availability of a locally-important mineral resource recovery site is anticipated. This issue will not be evaluated further in the EIR.

XII. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

a, b, e, and f. The implementation of the proposed ordinance to ban single-use plastic carryout bags in specified retail stores within the City of Los Angeles would not result in any changes to existing land uses, new physical development, or construction activities within the City of Los Angeles. Therefore, the proposed ordinance would not create new noise sources of noise or groundborne vibration in any city area.

c and d. Potential additional vehicular trips related to the transport of paper and reusable bags are not anticipated to increase daily traffic volumes on a scale that is large enough to result in a measurable increase in noise levels on local roadways. Nonetheless, while this impact is anticipated to be less than significant, this issue will be addressed further in the EIR.

XIII. POPULATION AND HOUSING

-- Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a. The implementation of the proposed ordinance to ban single-use plastic carryout bags in specified retail stores would not result in any changes in the existing land uses or new physical development that could directly or indirectly induce substantial population growth within the City of Los Angeles or the greater region. No impact would occur and this issue will not be addressed further in the EIR.

b and c. The proposed ordinance does not involve the removal of housing or displacement of people. No impact would occur and these issues will not be addressed further in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☒	☐	☐	☐

a. The implementation of the proposed ordinance to ban single-use plastic carryout bags in specified retail stores would not result in any changes in the existing land uses or new physical development that could result in population growth, and would not induce migration of people from other regions into the City of Los Angeles. Therefore, the proposed ordinance would not increase demand on Los Angeles Police Department or Los Angeles Fire Department services that could directly or indirectly result in substantial adverse physical impacts associated with the provision of new or physically altered police or fire facilities, need for new or physically altered police or fire facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives. No impact would occur and this issue will not be addressed further in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

With no change in existing land uses and no new physical development associated with the proposed ordinance, there would not be a population increase within the City of Los Angeles due to the proposed project that could contribute to increased student population attending local schools or city residents using parks or other public services. To the extent that the proposed ordinance may incrementally reduce the litter on school grounds, in public parks, and on the grounds of other public facilities (for example in the landscaping and on the grounds of libraries, fire stations, etc.), it may free up staff and funding to maintain other parts of these facilities. However, the proposed ordinance requires a public education component during the one-year grace period that would be conducted by the City's Bureau of Sanitation. The potential effect on sanitation services associated with the provision of this public education component will be evaluated in the EIR.

XV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a and b. The implementation of the proposed ordinance to ban single-use plastic carryout bags in specified retail stores would not result in any changes in the existing land uses or new physical development that could result in population growth, and would not induce migration of people from other regions into the City of Los Angeles. Therefore, the proposed ordinance would not increase the use of, or require the construction of new parks or other recreational facilities that might have an adverse physical effect on the environment. No impact would occur and these issues will not be addressed further in the EIR.

XVI. TRANSPORTATION/TRAFFIC

-- Would the project:

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b) Conflict with applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location which results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with adopted policies plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the safety of such facilities?	☐	☐	☐	☒

a and b. The implementation of the proposed ordinance may lead to a temporary short-term increase in the use of single-use paper bags and may result in a long-term increase in the use of reusable bags. This may lead to a temporary increase in the frequency of truck or van trips needed to deliver a greater number of these carryout bags to and within the City of Los Angeles. The potential for and effect of such changes in traffic will be evaluated in the EIR.

c. The implementation of the proposed ordinance to ban single-use plastic carryout bags in specified retail stores within the City of Los Angeles would not result in any changes in the existing land uses or new physical development, and therefore would not affect the existing air traffic patterns or volumes. No impact would occur and this issue will not be addressed further in the EIR.

d through f. With no changes in the existing land uses or new physical development associated with the proposed ordinance, no changes to the existing roadway or street networks that could result in hazardous traffic conditions affecting pedestrian safety, circulation safety, or emergency access would occur. The proposed ban on single-use plastic carryout bags in specified retail stores would not affect the City's adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the safety of such facilities. No impact would occur and these issues will not be addressed further in the EIR.

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☒	☐	☐	☐

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☒	☐	☐	☐
g) Comply with federal, State, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

a, and **d through f.** The proposed ordinance aims to reduce current consumption of billions of single-use carryout bags per year in the City of Los Angeles and increase the use of reusable bags. The proposed ordinance may result in a short-term increased use of single-use paper carryout bags and may result in a long-term increase in use of reusable bags. The manufacturing process for paper bags and reusable carryout bags and an increase in the laundering of reusable bags could lead to an increased use of potable water and generation of wastewater. The potential for a short-term increase in disposal of paper bags and for a long-term increased disposal of reusable bags at landfills serving the City will be evaluated in the EIR. As the manufacturing process for paper and reusable bags uses some materials that are hazardous, the issue of compliance with wastewater treatment requirements, while anticipated to be a less than significant effect, will also be evaluated in the EIR.

b and c. The implementation of the proposed ordinance to ban single-use plastic carryout bags in specified retail stores would not result in any changes in the existing land uses or new physical development. Therefore, the implementation of the proposed ordinance would not generate additional demand requiring construction of new or expansion of existing drainage or wastewater facilities serving the city. No impact would occur and these issues will not be discussed further in the EIR.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

a. As discussed previously, the proposed ordinance would not result in any changes in the existing land uses or new physical development or construction activity and therefore, would not affect examples of the major periods of California history or prehistory. The proposed ordinance to ban single-use plastic carryout bags at the point of sale at specified retail stores within the City of Los Angeles is anticipated to result in an overall beneficial effect on biological resources by reducing litter associated with discarded single-use plastic bags. However, the effects of a potential temporary increase in the use of paper carryout bags and a potential long-term increase in the use of reusable bags resulting from the implementation of the proposed ordinance on sensitive habitats and species will be evaluated further in the EIR.

b. As discussed previously, the implementation of the proposed ordinance may have a potential to result in air quality, biological resources, forest resources, greenhouse gas emissions, mineral resources, traffic, water quality, and public services and utilities impacts that may be cumulatively significant. Therefore, this issue will be evaluated further in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

c. As discussed previously, the proposed ordinance may have a potential for adverse effects on people related to air quality, greenhouse gas emissions, traffic, water quality, public services and utilities, and other issues. The reusable bags sold in the City will be free of heavy metals, but like many other household items would require hygiene care, including regular cleaning, to eliminate the potential for bacterial growth. Therefore, these issues will be evaluated further in the EIR.

References

1. Master Environmental Assessment on Single-Use and Reusable Bags, Green Cities California, March 2010.
2. City of Los Angeles Department of City Planning. Framework Element of the General Plan, http://cityplanning.lacity.org/cwd/framwk/chapters, accessed August 2012.
3. State and County, Los Angeles (city) quick facts from the US Census Bureau, http://quickfacts.census.gov, accessed August 2012.
4. California Department of Fish and Game, Habitat Conservation Programs, http://www.dfg.ca.gov, accessed August 2012.
5. City of Los Angeles official website, http://www.lacity.org, accessed August 2012.

Preparers of the Initial Study

Lead Agency

City of Los Angeles
Department of Public Works
Bureau of Sanitation
1149 S. Broadway, 5th Floor
Los Angeles, CA 90015

Contact Person: Karen Coca, Division Manager
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Consultant to the Lead Agency

Parsons Brinckerhoff, Inc.
444 South Flower Street, Suite 800
Los Angeles, CA 90071

Phone: (213) 362-9470
Fax: (213) 362-9480

Irena Finkelstein, AICP Project Manager

From: **Susan Murtishaw** <SMurtishaw@calhfa.ca.gov>
Date: Thu, Sep 20, 2012 at 4:12 PM
Subject: RE: Notice of Preparation and Initial Study - Single Use Bag Ban
To: san SRCRD <srcrd@lacity.org>

I have asked this before and not gotten a response; What do you line your trash with? I use the plastic shopping bags handed out by the store. I have bought recycled content bags, which are still plastic and you could require the stores to use them if this is the desired substitution. I have also tried biodegradable plastic bin liners, which degrade well before I empty my trash bin (usually in one day if I put something wet in the bin).

When I receive paper bags I line my recycle trash container with them and then put them in the city's recycle bin when I empty it (occasionally I reuse them). I do have canvas bags and do use them, but this doesn't address the wet trash question. Surely you have come across this issue before; if not would you please address it in your public education plans.

Susan Murtishaw

From: **Emi Carvell** <oneiemi@earthlink.net>
Date: Thu, Sep 20, 2012 at 8:11 PM
Subject: RE: Notice of Preparation and Initial Study - Single Use Bag Ban
To: san SRCRD <srcrd@lacity.org>

I'm an original participants for the ZERO WASTE stakeholder from WLA and so glad to hear the process and progress. If you need any help from the citizen of WLA or an official ZERO WASTE ambassador, me! Please let me know.

I do lots of Hands-on Organic Garden workshop as a Master Gardener in Venice and Santa Monica and I implement Zero Waste method in my session.

Thank you very much,

;)Emi Carvell

From: <info@cfeca.org>
Date: Thu, Sep 20, 2012 at 3:38 PM
Subject: [Auto-Reply] Notice of Preparation and Initial Study - Single Use Bag Ban
To: san SRCRD <srcrd@lacity.org>

Please note the new email address for Western Plastics Association has changed. The new email address is info@westernplastics.org

From: **Jirair** <jirair@gmail.com>
Date: Mon, Sep 24, 2012 at 12:44 AM
Subject: Fwd: [MelroseHill] FW: POST --Notice of Preparation and Initial Study - Single Use Bag Ban
To: daniel.hackney@lacity.org
Cc: srcrd@lacity.org

Hello Daniel,

As I understand you the Neighborhood Council liaison for the Bureau of Sanitation.

I revived the email below from neighbor of mine. I am interested in receiving emails directly from you and/or another representative from your department. Please add my email to any and all email notification lists you may have access to.
I appricate your services to the City of Los Angeles. Thank you.

Best,

Jirair

--
Jirair Tossounian
Hollywood Studio District Neighborhood Council, Board Member
Melrose Hill Neighborhood Association, Outreach
Lemon Grove Park Advisory Board, Stakeholder

---------- Forwarded message ----------
From: **edward** <edvhunt@earthlink.net>
Date: Sun, Sep 23, 2012 at 11:54 AM
Subject: [MelroseHill] FW: POST --Notice of Preparation and Initial Study - Single Use Bag Ban

FYI

From: **Mitch Barlas** <mitch@bagspeak.org>
Date: Sun, Sep 30, 2012 at 4:43 PM
Subject: Re: Notice of Preparation and Initial Study - Single Use Bag Ban
To: Erin Knight <erin.knight@lacity.org>

Erin,

Thanks much for the emai back and including us in the notice of preparations.

My best wishes,

Mitch

Mitch Barlas
Founder/Director
(831) 244-0925 Office
(917) 817-5549 Cell
www.BagSpeak.org
www.Bagito.co

From: **Ibarra, Sergio** <sergio.ibarra.94@my.csun.edu>
Date: Mon, Sep 24, 2012 at 3:41 PM
Subject: Re: Notice of Preparation and Initial Study - Single Use Bag Ban
To: san SRCRD <srcrd@lacity.org>

Good afternoon,

Can the department add an additional meeting at the Pacoima City Hall for the North Valley?

-Sergio Ibarra

Oct 10, 2012 (12 days ago)

Jacy Bolden jacybolden@sbcglobal.net

to Finkelstein, daniel.hackney, me, kjames, Leslie.Tamminen

Dear Irena ~

It was a pleasure meeting you last week at the community outreach meeting regarding the Notice of Preparation of Environmental Impact Report (EIR) for the Proposed Single-Use Plastic Bag Ordinance. For the record I would like to say I am fully in support of the City of Los Angeles' efforts to phase-out/ban plastic single-use carryout bags and charge a fee on paper single-use carryout bags - though I do have an unresolved question/concern.

As promised, following is my question and comments as it pertains to the following item listed in the NOP:
2) Mandate a charge on recycled content paper single-use carryout bags at the point of sale in retail stores.

A grace period of six months for large retailers and one year for small retailers would be provided during which paper bags that are 100 percent recyclable and have at least 40 percent post-consumer content would be provided at no cost to consumers for the purposes of carrying out their purchases. This period would include a public education component. Upon completion of the grace period, retailers would charge ten cents per single-use paper bag having at least 40 percent post-consumer content, which would be retained by the retailer.

Perhaps there is something that I am missing, however based upon the discussion that took place during the public meeting I didn't feel that I came away with a clear understanding of:

Why require both large and small stores to provide free paper bags for 6 and 12 months respectively?

1) On the surface, it appears that this type of requirement may provide the added 'negative environmental impact' that the plastics industry is looking for through the CEQA process. Though it be for only one year, this requirement would significantly increase the number of paper bags purchased, consumed and disposed of (hopefully recycled) in the City of Los Angeles. With that, there are the related impacts that pertain to the production and use of paper bags (water, electricity, transportation, recycling/disposal, etc.) Numerous other jurisdictions have passed ordinances which simply required a fee to be charged on paper bags once the ordinance went into effect - causing many stores to post advance notices of the ordinance effective date at their

store entrances (e.g. "NOTICE: City of Los Angeles ban on plastic bags and fee on paper goes into effect...."). Many of those ordinances used the 6 and 12 month 'grace periods' as the time frame within which the large and small stores, respectively, had to use up their on-hand plastic bag supplies and post educational notices to their customers of the impending ordinance implementation.

2) There will be an increased negative financial impact on stores large and small, many of whom only use plastic bags currently. During these economic times is it really reasonable/fair to place that added economic burden on them - especially requiring small businesses to do so for 12 months?

If there is sound reasoning for this revised type of approach I am very interested to learn what that might be such that I can then further support the initiative in total - offering to volunteer at giveaway locations, etc.

Thank you for your efforts in bringing this initiative forward, and I look forward to learning from your reply.

Resourcefully,
Jacy Bolden
Westchester Resident
jacybolden@sbcglobal.net

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

October 11, 2012

Karen Coca, Division Manager
Solid Resources Citywide Recycling Division
City of Los Angeles Department of Public Works
Bureau of Sanitation
1149 S. Broadway, 5th Floor
Los Angeles, CA 90015

Notice of Preparation of a CEQA Document for the Single-Use Plastic Carryout Bag Ordinance

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft CEQA document. Please send the SCAQMD a copy of the Draft EIR upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. The lead agency may wish to consider using land use emissions estimating software such as the recently released CalEEMod. This model is available on the SCAQMD Website at: http://www.aqmd.gov/ceqa/models.html.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. If you have any questions regarding this letter, please call Ian MacMillan, Program Supervisor, CEQA Section, at (909) 396-3244.

Sincerely,

Ian MacMillan
Program Supervisor, CEQA Inter-Governmental Review
Planning, Rule Development & Area Sources

IM
LAC120920-01
Control Number

Ralphs FOOD 4 LESS
P. O. Box 54143 – Los Angeles, California 90054

Kendra Doyel
Vice President, Public Relations
(310) 884-4141

October 16, 2012

Ms. Karen Coca
Division Manager
Solid Resources Citywide Recycling Division
City of Los Angeles Department of Public Works
Bureau of Sanitation
1149 South Broadway, 5th Floor
Los Angeles, CA 90015

Dear Ms. Coca:

Thank you for the opportunity to provide written comment concerning the City of Los Angeles' efforts to adopt and implement an ordinance to ban the use of single-use plastic carryout bags and charge a fee on paper to encourage the use of reusable bags. Please know that Ralphs and Food 4 Less strongly support the City's efforts to ban plastic bags while encouraging the reduction of paper bag usage in favor of reusable bags.

We have reviewed the City's Initial Study (*Single-Use Plastic Carryout Bag Ordinance*) conducted on behalf of the Department of Public Works, Bureau of Sanitation, and would like to provide several comments for your consideration.

Specifically, we are very concerned about the City Council's action to extend for an additional six months free paper bags beyond the initial six-month grace period for large retailers and an additional 12 months for smaller retailers. Our concern and opposition to the extension of an additional six-month grace period (for large retailers) is based on several observations and impacts.

I. The six-month extension of free paper bags is not consistent with the City Council's stated objective to reduce paper bag usage impacts

First, we do not believe a six-month extension of free paper bags is consistent with the City Council's stated objective of reducing the impact of paper bags to the environment, our communities and area landfills while promoting the use of reusable bags by retail customers. In fact, we agree with the City's Initial Study assessment, Section II., Agriculture and Forest Resources, page 8 (d) and (e):

> *"The implementation of the proposed ordinance may result in the increase in the use of paper bags, which are manufactured with wood and pulp materials."*

We also point out that the initial study assessment also concludes a number of other "potentially significant impacts" including increased truck traffic, impacts to air quality, and a temporary increase in greenhouse gas emissions – all the result of the additional six-month grace period beyond the initial six-month grace period where both paper and plastic are available.

II. The six-month extension of free paper bags will increase, not decrease, the use of paper bags

Consumers will be given a choice at the check-out stand during the additional six-month grace period – either purchase a reusable bag or receive free paper bags for their groceries. We believe the choice will be a simple one for consumers – use free paper bags, which will result in an increase in paper bag usage and a decrease in reusable bag usage during the six-month period. The City's initial study assessment seems to agree with our conclusion. We believe, based on prior experience in other jurisdictions, a strong education effort during the *initial* six-month grace period will provide for an adequate period for consumers to transition to reusable bags and be made aware of the ten cent fee on paper.

Ralphs/Food 4 Less has made significant investments in other areas affected by bans to educate consumers and equip them with reusable bags prior to the onset of such a ban. We have accomplished this by offering free bags, bags with purchase, and discounted bag programs to enable customers to stock up on reusables prior to implementation. We also continue to put reminders in our parking lots, our entrances and in our stores to educate and encourage customers to bring back their bags. This has proven very effective for consumers.

During the Council's debate on the proposed Ordinance, a City Councilmember raised the argument that the additional six-month period was necessary to offset potential economic hardships to communities of color and those living below the poverty level. As the initial study points out: *"...retailers would be required to provide at the point of sale, free of charge, paper bags or reusable bags to consumers participating in the California Special Supplemental Food Program for Women, Infants and Children or in the Supplemental Food Program."* In LA County, we have not experienced any problems with transitioning all consumers to reusables with the exception of those stores that border "non-ban" jurisdictions. In those stores, consumers move their business to the store where they receive free bags, just as they would move to the free paper bag. Our experience confirms that this 6 month free paper would not educate or support consumers, but only supply added costs and negative environmental effects.

III. The six-month extension will have a detrimental economic impact to large grocers, like Ralphs and Food4Less

While the City's initial study did not take into consideration economic impacts or job losses, we would like to bring to your attention the significant economic impact just to our company alone. Ralphs Grocery Co. conducted an assessment of the potential costs associated with enactment of the City's ordinance with the additional six-month extension of free paper bags to Ralphs and Food 4 Less stores located within the City of Los Angeles. *The fiscal impact to Ralphs/Food4Less' 41 stores within the City of Los Angeles would be more than $4.2 million, or nearly $1million a MONTH for that six-month period.* There are dozens of grocers and literally hundreds of grocery stores within the City of Los Angeles that will be faced with a similar cost.

Ralphs/Food 4 Less strongly supports the elimination of plastic bags in the City of Los Angeles and throughout California. In fact, Ralphs was proud to stand with a number of statewide environmental organizations in support of legislation introduced by State Assemblywoman Julia Brownley (AB 298) to ban plastic bags in California. Our environmental record and leadership is clear. We also support the transition by consumers to reusable bags.

However, we strongly encourage the City to reconsider its effort to extend by an additional six months free paper bags to consumers. It is an unnecessary and counter-productive measure that will result in an increased impact to the environment and significant costs to the grocer community in the City of Los Angeles. If you have any questions or need additional information please do not hesitate to call me at (310) 884-4141. Thank you for the opportunity to provide comments on such an important issue to the City of Los Angeles.

Sincerely,

Kendra Doyel

October 18, 2012

Karen Coca, Division Manager
Solid Resources Citywide Recycling Division
City of Los Angeles, Department of Public Works, Bureau of Sanitation
1149 S. Broadway, 5th Floor
Los Angeles, CA 90015
Sent via email and mail

RE: Comments on Initial Study - City of Los Angeles' Single-Use Bag Ordinance

Dear Ms. Coca,

On behalf of the undersigned and our thousands of members, we thank you for giving us the opportunity to provide written comments on the City of Los Angeles' Initial Study of the proposed ordinance addressing single-use bags.

Billions of single-use plastic bags are used in Los Angeles every year.[1] Despite both voluntary and statewide efforts to implement recycling programs, the statewide recycling rate for plastic bags remains around five percent;[2] the majority of single-use plastic bags – even if reused once

[1] City of Los Angeles. Dept. of Public Works, Bureau of Sanitation. *Initial Study: Single-Use Plastic Carryout Bag Ordinance*. Sept. 2012: 1. Print.
[2] County of Los Angeles. Dept. of Public Works. *Los Angeles County Plastic Bag Study: Staff Report to the Los Angeles County Board of Supervisors*. Aug. 2007: 2. Print.

or twice by consumers – end up in our landfills or as part of the litter stream, polluting our inland and coastal communities and wasting taxpayer dollars on cleanup costs.[3]

For these reasons, we fully support the steps that the City of Los Angeles has taken to draft an ordinance banning plastic single-use bags. A ban on plastic bags coupled with a fee on single-use paper bags will be a major step in reducing the economic waste and environmental impacts that single-use bags create.

We do not believe that the proposed ordinance will result in negative environmental impacts. Rather, similar ordinances have changed consumer behavior and have resulted in an increased use of reusable bags, a more sustainable alternative to single-use bags. Accordingly, we strongly believe that an Environmental Impact Report ("EIR") is not necessary for the proposed ordinance.[4] However, we recognize the City's desire to assess new information and address issues that have been the subject of past bag ban legal challenges. With these points in mind, we request that the following comments be carefully considered in preparing the forthcoming draft EIR.

Also of note, we appreciate the extensive opportunity for public comment on the Initial Study. This issue is important to Los Angeles residents, and a number of neighborhood councils included information about the public meetings on their websites.[5] We encourage the City to fully consider all submitted documents in the attached Appendix, and to continue holding stakeholder meetings and soliciting public input as it moves forward with development of the California Environmental Quality Act ("CEQA") documents and language for the proposed ordinance.

I. Effectiveness of Bag Bans

The City's proposed charge on single-use paper bags and a ban on plastic bags are intended to reduce the use of these bags and encourage Los Angeles consumers to use a reusable bag (or no bag).[6] However, many of the environmental concerns expressed in the Initial Study appear to stem from the assumption that the proposed ordinance may lead to a shift from plastic to paper single-use bags.[7] We do not believe that the proposed ordinance will lead to an increase in the

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[3] For example, California spends approximately $25 million annually to landfill discarded plastic bag waste. *See* "Shopping? Take Reusable Bags!" CalRecycle. 23 Nov. 2011. Web. 16 Oct. 2012. <http://www.calrecycle.ca.gov/publiced/holidays/ReusableBags.htm>. These cleanup costs do not reflect the energy costs associated with producing single-use bags, or the negative socio-economic, public health and environmental costs associated with single-use bag litter. *See also* City of Los Angeles. Office of the City Administrative Officer. *Report Back on Proposed Ban of Single Use Bags in the City*. Mar. 23, 2012: 7. Print.

[4] A number of California cities and counties found that the proposed bag ordinances would not have a significant effect on the environment and issued negative declarations or mitigated negative declarations. *See, e.g.*, the City of Dana Point, the City of Malibu, the County of Santa Clara, the County of Santa Cruz (mitigated negative declaration), and the City of Laguna Beach.

[5] *See, e.g.*, websites for the following Neighborhood Councils: Northridge East (<http://nenc-la.org/>), Northridge West (<http://www.northridgewest.org/>), Granada Hills North (<http://ghnnc.org/>), Granada Hills South (<http://ghsnc.org/>), Porter Ranch (<http://www.prnc.org/calendar>), Northridge South (<http://www.northridgesouth.org/calendar/>).

[6] City of Los Angeles. Dept. of Public Works, Bureau of Sanitation. *Initial Study: Single-Use Plastic Carryout Bag Ordinance*. Sept. 2012:1. Print.

[7] For example, with respect to potential impacts on forest resources the Initial Study notes that the "implementation of the proposed ordinance may result in the increase in the use of paper bags . . . While such potential increase in use of paper bags, if it

use of paper bags, and the experiences in Los Angeles County supports the effectiveness of point of sale charges in preventing this increase from occurring. Specifically, Los Angeles County recently announced that its ordinance, which became fully effective in 2012 and imposes a charge on paper bags, has resulted in a 95% reduction in overall single-use bag usage (both plastic and paper).[8] Charges on single-use bags in Ireland (PlasTax on plastic single-use bags) and Washington, D.C., (5-cent charge on both plastic and paper single-use bags) have also dramatically reduced single-use bag consumption in those locations.[9] This type of data and the effectiveness of bag ordinances in addressing single-use bag waste should be considered as the City moves forward with its CEQA analysis.

II. Reusable Bags and Potential Environmental Impacts

Reusable bags are durable products designed to be used hundreds of times. Assuming these bags are reused at least a few times, the environmental impacts are significantly lower on a per-use basis than other single-use bags (paper, plastic or biodegradable).[10] Furthermore, the fact that reusable bags are durable and can be used multiple times means that the number of reusable bags in the waste stream is much lower than the number of single-use bags, which are used only once or twice; a smaller number of reusable bags in the waste stream, and the fact that reusable bags are usually heavier and less likely to be caught in the wind than single-use bags, means that reusable bags are less likely to be littered.[11] Single-use bag litter, particularly plastic bag litter, has been found, among other things, to have an adverse effect on marine wildlife and to compromise the storm water runoff systems.[12]

As previously discussed, the proposed City ordinance is expected to deter consumers from using single-use bags and increase use of reusable bags. Thus, the environmental benefits of implementing the ordinance will be positive, and we urge the City to consider the following points when drafting the EIR.

Water Quality/Hydrology Impacts

The Initial Study questions whether littered paper and reusable bags will enter storm drains and sewers and hence have a significant impact on water quality. We believe this concern is unwarranted for two reasons. First, requirements to comply with trash total maximum daily

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occurs, is anticipated to be both temporary and modest, the potential effects on the loss of forest land or conversion of forest land will be further evaluated in the EIR." *Id.* at 8.

[8] "About the Bag." County of Los Angeles. n.d. Web. 16 Oct. 2012. <http://dpw.lacounty.gov/epd/aboutthebag/index.cfm>.

[9] The 5-cent fee on single-use bags was implemented in Washington, D.C. in January 2010. The District of Columbia Office of Tax and Revenue estimated that establishments covered by the fee issued approximately 3 million bags in January 2010 (post-fee), an 86 percent decrease from the 22.5 million bags issued per month in 2009. *See* <http://www.washingtonpost.com/wp-dyn/content/article/2010/03/29/AR2010032903336.html>. More recently, officials in Washington, D.C. note that a drop in fee revenue is an indication that paper and plastic bag usage continues to be down. *See*, "Officials rejoice over low 5-cent bag fee revenue." WTOP 4 Oct. 2012. Web. 16 Oct. 2012 <http://www.wtop.com/?nid=893&sid=3062667>. Similarly, after imposing a levy on plastic carry-out bags, usage in Ireland dropped by over 90%. *See* "Plastic Bags." Ireland Department of the Environment, Heritage & Local Government. n.d. Web. 16 Oct. 2012. <http://www.environ.ie/en/Environment/Waste/PlasticBags/>.

[10] Green Cities California. *Master Environmental Impact Assessment on Single-Use and Reusable Bags*. Mar. 2010: 2. Print.

[11] County of Los Angeles. Department of Public Works. *Ordinances to Ban Plastic Carryout Bags in Los Angeles County: Final Environmental Impact Report* (2010): 3.2-18. Print.

[12] *See generally, id.* at 2-12.

loads ("TMDL") will hinder paper and reusable bags from entering storm drains. Under these TMDL requirements, the City must increasingly regulate trash, and will continue to install full capture devices on the Los Angeles River and Ballona Creek, two major water bodies in Los Angeles. With proper maintenance, these capture devices combined with other actions to attain TMDL compliance will prevent trash of 5 mm in diameter or greater from entering a catch basin, and thus will prevent paper and plastic bags (as well as the extremely infrequent wayward reusable bag) from entering Los Angeles' storm drain system.

Second, plastic bags – not reusable bags – are more likely to end up as litter and have an impact on water quality, due to their lightweight nature and the fact that they last indefinitely. One characterization study of urban litter in storm drains and the Los Angeles River estimated that plastic bag litter makes up as much as 25% of the litter stream.[13] In fact, plastic single-use bags are ubiquitous and are one of the top items organizations find during beach and inland cleanups. For example, the 2007 International Coastal Cleanup (ICC) report produced by the Ocean Conservancy found that bags were the fourth most common debris item collected worldwide during the coastal cleanup event behind cigarettes, food wrappers/containers, and caps/lids,[14] and over 7 million plastic bags were collected during ICC events over the last 25 years.[15] This number is staggering, especially if you consider that the ICC events only happen once a year. Reusable bags are a durable product. They are designed to be used hundreds of times over their lifetime and many are recyclable or made from recycled materials. Furthermore, due to their weight reusable bags, unlike other single-use bags, are less likely to be blown from a landfill or trash receptacles and thus less likely to become litter.[16]

The Initial Study also raises the issue of whether the manufacturing process for reusable bags will impact water supplies. In the EIR for its ordinance, Los Angeles County found that the ordinance would not result in significant adverse impacts to the County's water supply.[17] In fact, the County found that "the proposed ordinances would be expected to increase consumers' use of reusable bags, the production of which would consume less water than the production of both paper and plastic carryout bags when considered on a per-use basis, because reusable bags are designed to be used multiple times."[18] As with Los Angeles County's ordinance, the proposed City ordinance is expected to increase consumers' use of reusable bags, and thus, it is also unlikely that the reusable bag manufacturing process will significantly impact local water supplies.

In sum, we believe that water quality and water resources will see a positive benefit due to the proposed ordinance. Thus, we urge the City to re-evaluate its findings and consider the aforementioned points when drafting the EIR.

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[13] Los Angeles County of Public Works. *Los Angeles County Plastic Bag Study: Staff Report to the Los Angeles County Board of Supervisors.* (Aug. 2007): 24. Print.
[14] "International Coastal Cleanup Report 2007." Ocean Conservancy, 2008:7. Web. 16 Oct. 2012. <http://www.oceanconservancy.org/site/DocServer/ICC_AR07.pdf?docID=3741>.
[15] "Tracking Trash: 25 Years of Action for the Ocean." Ocean Conservancy, 2011: 4. Web. 16 Oct. 2012. <http://act.oceanconservancy.org/pdf/Marine_Debris_2011_Report_OC.pdf>.
[16] Green Cities California, *Master Environmental Impact Assessment on Single-Use and Reusable Bags*, 23 (Mar. 2010). Print.
[17] County of Los Angeles, Department of Public Works, *Ordinances to Ban Plastic Carryout Bags in Los Angeles County: Final Environmental Impact Report.* Oct. 2010: 3.5-12. Print.
[18] *Id* at. 3.5-15.

Impacts on Biological Resources

We strongly agree with the Initial Study's finding that the proposed ordinance will reduce litter associated with plastic bags, thereby resulting in an overall beneficial effect on biological resources.[19] In fact, a single-use bag reduction policy will ultimately benefit the flora and fauna in Los Angeles and beyond. Designed only for single-use, plastic single-use bags have a high propensity to become litter and then marine debris by traveling through urban storm drain systems. Plastic debris, including plastic bags, may choke and starve wildlife, distribute non-native and potentially harmful organisms, absorb toxic chemicals and degrade to micro-plastics that may be subsequently ingested.[20] Reusable bags are a durable product and do not often result in added litter that could significantly impact these sensitive biological resources.[21] Thus, the forthcoming draft EIR should continue to recognize the overall beneficial affect that reducing plastic litter will have on biological resources.

Impacts to Air Quality and Traffic Conditions

Based on the assumption that more reusable bags will be manufactured, transported and distributed, the Initial Study states that the ordinance may increase traffic conditions in Los Angeles and impact local air quality. However, unlike single-use bags, reusable bags are a durable product for which demand should decrease over time.[22] Further, some of the reusable bags are manufactured locally, and local sourcing of bags reduces the distances trucks would travel to distribute these bags to stores.[23] For these reasons, in the forthcoming draft EIR the City should measure the impacts from reusable bags – if any – against reductions in emissions and traffic resulting from diminished plastic bag manufacturing, transportation and distribution and should consider potential impacts for each bag on a per-use basis.[24]

The Study also notes that the vehicular trips associated with the public education component of the ordinance may impact local traffic conditions and impact air quality. This assertion is unsubstantiated. The City already partners with local organizations to educate residents about shifting to reusable bags during the annual A Day Without a Bag event.[25] Because the City is already engaged in public outreach on this issue, the number of additional vehicular trips

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[19] City of Los Angeles. Department of Public Works, Bureau of Sanitation. *Initial Study: Single-Use Plastic Carryout Bag Ordinance*. Sept. 2012: 13. Print.

[20] Barnes D. K. A., Galgani F., Thompson R. C., Barlaz M. "Accumulation and fragmentation of plastic debris in global environments." *Phil. Trans. R. Soc. B* 364 (2009): 1985–1998. Print.

[21] County of Los Angeles. Dept. of Public Works. *Ordinances to Ban Plastic Carryout Bags in Los Angeles County: Final Environmental Impact Report*. Oct. 2010: 3.2-18. Print.

[22] The City of Los Angeles has given out 250,000 reusable bags in the last seven years, and after the ordinance goes into effect, consumers will begin to bring their previously acquired reusable bags to the store, further reducing demand for this product.

[23] GreenVets LA, a Los Angeles-based sewing company that partners with Veterans Memorial Hospital, has supplied the Cities of Santa Monica and Los Angeles with reusable bags made from scrap materials sewn by veterans.

[24] County of Los Angeles. Dept. of Public Works. *Ordinances to Ban Plastic Carryout Bags in Los Angeles County: Final Environmental Impact Report*. Oct. 2010: 3.3-19. Print.

[25] A unique coalition of major retailers, local governments and regional environmental groups comes together annually to organize *A Day Without a Bag*, urging consumers to forego environmentally harmful single-use plastic or paper grocery bags in favor of reusable totes. By raising consumer awareness about personal choices, the event's short-term goal is to educate Southland shoppers to adopt more sustainable practices during the holidays and coming year. *See*, <http://www.healthebay.org/get-involved/events/day-without-bag> for more information.

associated with implementation of the ordinance should be extremely limited and should not significantly contribute to traffic conditions or overall emissions.

For these many reasons, we believe that there will be no significant traffic and air quality impacts caused by implementation the proposed ordinance.

III. Additional Considerations

Documents Considered during the CEQA Analysis

Moving forward with the CEQA analysis, the City should review and consider the studies, reports, articles, videos and other documents referenced in the attached Appendix. The information and data presented in these documents will be relevant to the City's review of potential environmental impacts associated with single-use and reusable bags. These documents may also assist the City in further developing the public education component of the ordinance.

Environmental Impacts of Paper Bags

Although paper bags pose less risk to the aquatic environment because of their biodegradability and are less likely to become litter because of their weight and recyclability, the manufacturing of virgin paper emits greenhouse gases and uses toxic substances in pulping process, which include caustic sodas, sodium hydroxide, sodium sulfide, and chlorine compounds.[26] The proposed ordinance will require retailers to sell recyclable paper bags made of a minimum of 40% postconsumer recycled content. These bags will contain less virgin fiber, thus consuming less material and would have fewer environmental impacts than conventional paper bags. Along with data demonstrating the effectiveness of point of sale charges, this added environmental benefit of the proposed ordinance should also be considered when evaluating potential environmental impacts.

Alternatives to the Proposed Ordinance

The City's Initial Study reviewed the ordinance as proposed by the Council.[27] However, as part of as part of the CEQA process, the City will evaluate a range of feasible alternatives that could attain the project objectives and avoid or substantially lessen any of the significant environmental impacts of the proposed project. We strongly urge the City to consider the Los Angeles County Bag ban ordinance as one of these alternatives. The Los Angeles County ordinance has been very effective since its enactment, and while similar to the proposed City ordinance, there are differences.[28] Thus, at a future time the Los Angeles City Council may wish to take the County ordinance structure into consideration. In order to preserve time, efficiency of resources and adhere to the legal requirements of CEQA, we strongly urge the City to evaluate

[26] Green Cities California, *Master Environmental Impact Assessment on Single-Use and Reusable Bags*. Mar. 2010: 18. Print.
[27] City of Los Angeles. Dept. of Public Works, Bureau of Sanitation. *Initial Study: Single-Use Plastic Carryout Bag Ordinance.* Sept. 2012: 1. Print.
[28] For example, the City ordinance provides a six-month grace period for large retailers and a one-year grace period for small retailers; the ban would take effect upon completion of the grace period. *Id.* at 1. The Los Angeles County ordinance did not have a grace period for large retailers.

the Los Angeles County ordinance structure in the draft EIR and to clarify where the environmental analyses differ for the two ordinances. Evaluating the County ordinance as an alternative should not impose any undue burden, as both the proposed City ordinance and County ordinance share many similarities and thus, the issues to be considered will largely overlap.

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Summary

As previously stated, we do not believe that the proposed ordinance will result in negative environmental impacts and do not believe an EIR is needed. However, if the City continues to develop an EIR, it is critical that the comments above and the information in the attached Appendix are considered in the analysis. We appreciate the City's commitment to reduce the economic waste and environmental impacts associated with single-use bag litter by drafting the proposed ordinance, and we urge the City to move forward as quickly as possible in completing the CEQA review process. A single-use bag ordinance in the City is long overdue.

Sincerely,

Kirsten James, Water Quality Director
Heal the Bay

Angela Howe, Legal Director
Surfrider Foundation

Stiv Wilson, Policy Director
5 Gyres

Team Marine
Santa Monica High School

Leslie Mintz Tamminen, Ocean Program Director
Seventh Generation Advisors

Appendix

Forthcoming Documents

California. State Water Resources Control Board. Statewide Policy for Trash Control in Waters of the State. *Forthcoming*.

County of Los Angeles. Status Report: Effectiveness of Los Angeles County Single-Use Bag Ordinance. *Anticipated release: October 2012.*

Environmental Impact Reports, TMDLs and Related Policies, Reports, and Legal Documents

California. State Water Resources Control Board. Los Angeles Regional Water Quality Control Board. "Marine Debris TMDL for Santa Monica Bay Nearshore and Offshore." Print.

---. ---. "Trash TMDL for Ballona Creek and Wetlands." Print.

---. ---. "Trash TMDL for Los Angeles River Watershed." Print.

---. ---. *Trash Total Maximum Daily Loads for the Los Angeles River Watershed*. 2007: 6-17, 27- 42. Web. 16 Oct. 2012 <http://www.epa.gov/waters/tmdldocs/34863-RevisedStaffReport2v2.pdf>.

California Ocean Protection Council. *Resolution on Reducing and Preventing Marine Debris*." 8 Feb. 2007. Web. 16 Oct. 2012 <http://www.opc.ca.gov/2007/02/resolution-of-the-california-ocean-protection-council-on-reducing-and-preventing-marine-debris/>.

---. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*." 20 Nov. 2008: 2-5, 8, 13-14. Web. 16 Oct. 2012 <http://www.opc.ca.gov/webmaster/ftp/pdf/opc_ocean_litter_final_strategy.pdf>.

City of San Jose. *Draft Environmental Impact Report: Single-Use Carryout Bag Ordinance*. Oct. 2010; *First Amendment to Draft Environmental Impact Report*. Oct. 2010). Web. 16 Oct. 2012 <http://www.sanjoseca.gov/planning/eir/eir.asp>.

City of Santa Monica. *Single-use Carryout Bag Ordinance: Initial Study.* Mar. 2010. Web. 16 Oct. 2012 <http://www.smgov.net/uploadedFiles/Departments/OSE/Task_Force_on_the_Environment/TFE_2010/Attachment%205_Bag%20Ordinance_Final%20Initial%20Study.pdf>.

---. *Single-use Carryout Bag Ordinance: Final Environmental Impact Report*. Jan. 2011. Web. 16 Oct 2012 <http://www.smgov.net/uploadedFiles/Departments/OSE/Business/Santa_Monica_Single-use_Carryout_Bag_Ordinance_FEIR%5B1%5D.pdf>.

County of Los Angeles. Dept. of Public Works. *Ordinances to Ban Plastic Carryout Bags in Los Angeles County: Initial Study*. Dec. 2009. Web. 16 Oct. 2012 <http://ladpw.org/epd/aboutthebag/PDF/Initial_Study_12012009.pdf>.

---. ---. *Ordinances to Ban Plastic Carryout Bags in Los Angeles County: Final Environmental Impact Report*. Oct. 2010. Web. 16 Oct. 2012 <http://dpw.lacounty.gov/epd/aboutthebag/pdf/FinalEIR.pdf>.

---. ---. *Los Angeles County Plastic Bag Study: Staff Report to the Los Angeles County Board of Supervisors*. Aug. 2007. Web. 16 Oct. 2012 <http://ladpw.org/epd/pdf/PlasticBagReport.pdf>.

Green Cities California. *Master Environmental Impact Assessment on Single-Use and Reusable Bags*. Mar. 2010. Print.

*Hilex Poly Company, LLC v. Chicoeco, Inc. dba ChicoBag, No.*3-11-cv-0016 (D.S.C. 2011), expert report of Jenna R. Jambeck (on file with 7th Generation Advisors).

Maryland. Dept. of the Environment. "TMDL for Trash for Anacostia River Watershed, Montgomery and Prince George's Counties, Maryland and District of Columbia." Print.

Schmeer v. County of Los Angeles (Los Angeles Cnty. Super. Ct. No. BC 470705) (holding that the 10-cent charge on paper bags is not a tax under the California Constitution). Web. 16 Oct. 2012. <http://plasticbaglaws.org/litigation/los-angeles-county/>.

Schmeer v. County of Los Angeles (B240592, app. pending). Respondent's brief. *Forthcoming* post on LA Law Library. Web. <http://www.lalawlibrary.org/research/briefs/B240592>/. (Also on file with 7th Generation.)

Marine Debris Articles and Websites

Barnes D. K. A., Galgani F., Thompson R. C., Barlaz M. "Accumulation and fragmentation of plastic debris in global environments." *Phil. Trans. R. Soc. B, Biological Sciences* 364 (2009): 1985–1998. Print.

Browne M, Dissanayake A, Galloway T, Lowe D, Thompson R. "Ingested Microscopic Plastic Translocates to

the Circulatory System of the Mussel, Mytilus edulis (L.)." *Environmental Science & Technology* 42. 13 (2008): 5026-5031. Print

Browne, M.A., et al. "Accumulation of microplastic on shorelines worldwide: sources and sinks." *Environmental Science and Technology* 45.21 (2011): 9175-9179. Print

Cadee G. "Seabirds and floating plastic debris." *Marine Pollution Bulletin* 44 (2002): 1294-1295. Print.

Gregory, Murray R. "Environmental Implications of Plastic Debris in Marine Settings--entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." *Phil. Trans. R. Soc. B, Biological Sciences* 364 (2009): 2013-2025. Print

Jacobsen, J.K., et al. "Fatal ingestion of floating marine debris by two sperm whales (*Physeter macrocephalus*)." *Marine Pollution Bulletin* 60 (2010)**:**765-767. Print

"Marine Debris Impacts." Oceans, Coasts, Estuaries & Beaches. U.S. Environmental Protection Agency. n.d. Web. 16 Oct. 2012 <http://water.epa.gov/type/oceb/marinedebris/md_impacts.cfm>.

Ocean Conservancy. *Tracking Trash: 25 Years of Action for the Ocean.* 2011: 4. Web. 16 Oct. 2012. <http://act.oceanconservancy.org/pdf/Marine_Debris_2011_Report_OC.pdf>.

Stevenson, C. "Plastic Debris in the California Marine Ecosystem: A Summary of Current Research, Solution strategies and Data Gap." University of Southern California Sea Grant, Synthetic Report, California Ocean Science Trust, Oakland, CA (2011). Print.

Thompson, Richard, et al. *Marine Debris as a Global Environmental Problem*. Scientific and Technical Advisory Panel. Nov. 2011. 16 Oct. 2012 <http://www.stapgef.org/sites/default/files/Marine%20Debris.pdf>.

Region 9. U.S. Environmental Protection Agency. *Marine Debris in the North Pacific: A summary of existing information and identification of data gaps*. EPA-909-R-11-006, Nov. 2011. Web. 16 Oct. 2012 <http://www.epa.gov/region9/marine-debris/pdf/MarineDebris-NPacFinalAprvd.pdf>.

Letters of Support from Los Angeles Neighborhood Councils/Homeowners Associations

Bel Air/Beverly Crest, representing **27,000** stakeholders

Brentwood, representing **40,000** stakeholders

Canoga Park, representing **48,723** stakeholders

Chatsworth (letter of support for plastic bag ban, no fee on paper)

Del Ray, representing **30,000** stakeholders

Downtown LA, representing **45,518** stakeholders

East Hollywood, representing **50,566** stakeholders

Greater Griffith Park, representing **37,000** stakeholders

Mar Vista, representing **55,000** stakeholders

Mid-Town/North Hollywood, representing **70,000** stakeholders

North Hollywood North East, representing **12,000** stakeholders

Northridge East, representing **22, 632** stakeholders

Northridge West, representing **20,000** stakeholders

Palms, representing **40,000** stakeholders

Reseda, representing **62,174** stakeholders

Sherman Oaks Homeowners Association, representing **2,100** families

Silver Lake, representing **35,000** stakeholders

South Robertson, representing **45,000** stakeholders

Sun Valley Area, representing **81,788** stakeholders

Tarzana, representing **35,502** stakeholders

United Neighborhoods, representing **70,472** stakeholders

Venice, representing **40,885** stakeholders

West Hills, representing **39,000** stakeholders

West Los Angeles, representing **30,873** stakeholders

Westside, representing **80,000** stakeholders

Westwood, representing **47,916** stakeholders

Plastic Pollution PSAs and Videos

Azul. "Latinos ask you to Ban the Bag." *You Tube*. 28 Aug. 2012. Web. 16 Oct. 2012. <http://www.youtube.com/watch?v=Hc9zLBl6ctk&feature=youtu.be>.

Bag It! Dir. Suzan Beraza. Documentary. A Reel Thing Productions Film, 2010. <www.BagItMovie.com>.

"Green Vets Los Angeles Attend Hearing for Ban of Plastic Bags." *You Tube*. 26 May 2012. Web. 16 Oct. 2012. <http://www.youtube.com/watch?v=0vYgAzY56uw&feature=related>.

Heal the Bay. "The Majestic Plastic Bag – A Mocumentary." *You Tube*. 14 Aug. 2010. Web. 16 Oct. 2012. <http://www.youtube.com/watch?v=GLgh9h2ePYw>.

Plastic Free Times, YouTube Channel. You Tube. Web. 16 Oct. 2012. <http://www.theplasticfreetimes.com/videos>.

"Plastic Ocean, Parts 1 and 2." *You Tube*. 6 Sept. 2012. Web. 16 Oct. 2012. <http://www.youtube.com/watch?feature=player_embedded&v=9nxpN86nR7A> (Past 1); <http://www.youtube.com/watch?feature=player_embedded&v=DMq0Ox4EDOE> (Part 2).

Plastic Pollution. "The Ballad of the Plastic Bag." *You Tube*. 30 May 2012. Web. 16 Oct. 2012. <http://www.youtube.com/watch?feature=player_embedded&v=vQdpccDNB_A#!>.

Plastic Pollution Coalition, YouTube Channel (including: "Plastic State of Mind"; "Plastic Seduction"; "The Bay vs. The Bag"; "Buried in Plastic"; "National Geographic's Strange Days."). *You Tube*. Web. 16 Oct. 2012. <http://www.youtube.com/plasticpollution>.

"Real Supermarket Stories: Shoppers Sound Off on the Bag Ban." *You Tube*. 13 Aug. 2012. Web. 16 Oct. 2012.<http://www.youtube.com/watch?v=tjPKFjerRyA&list=UUVqmrFTtIlfAYkxGfDYJugQ&index=3&feature=plpp_video>.

Team Marine. **"**First Flush Plastic Pollution." *You Tube*. 12 Mar. 2012. Web. 16 Oct. 2012. <http://www.youtube.com/watch?v=M0KWOh5NKMA>.

---. "The 10 Rs." *You Tube*. 2010. Web. 16 Oct. 2012. <http://vimeo.com/10940292>.

Tedx. "Great Pacific Garbage Patch." 6 Nov. 2010. Web. 16 Oct. 2012. <http://www.tedxgreatpacificgarbagepatch.com>.

Government Bag Ban Websites and Resources

"About the Bag." Home page. Los Angeles County. Web. 16 Oct. 2012 <http://dpw.lacounty.gov/epd/aboutthebag>.

"Checkout Bag Ordinance." Home page. City of San Francisco. Web. 16 Oct. 2012 <http://sfenvironment.org/article/prevent-waste/checkout-bag-ordinance>.

"Single-Use Carryout Bag Ban." Home page. City of Santa Monica. Web. 16 Oct. 2012 <http://www.smgov.net/departments/ose/business/content.aspx?id=19804>.

NGO Plastic Pollution Websites and Resources

5 Gyres. Home page. Web. 16 Oct. 2012 <http://5gyres.org>.

7th Generation Advisors. Home page. Web. 16 Oct. 2012 <http://www.seventhgenerationadvisors.org>.

Algalita. Home page. 16 Oct. 2012 <http://www.algalita.org/index.php>.

"Keep Plastic Out of the Pacific." Home page. Environment California. Web. 16 Oct. 2012 <http://www.environmentcalifornia.org/programs/keep-plastic-out-pacific>.

Marine Debris." Home page. Heal the Bay. Web. 16 Oct. 2012 <http://www.healthebay.org/about-bay/current-issues/marine-debris>.

Plastic Bag Laws. Home page. Web. 16 Oct. 2012 <http://plasticbaglaws.org>.

"Plastic Bag Litter Pollution." Home page. Californians Against Waste. Web. 16 Oct. 2012 <http://www.cawrecycles.org/issues/plastic_campaign/plastic_bag>.

Plastic Free Times. Home page. Web. 16 Oct. 2012 <http://www.plasticfreetimes.com>.

Plastic Pollution Coalition. Home page. Web. 16 Oct. 2012 <http://plasticpollutioncoalition.org/>.

"Rise above Plastics." Home page. Surfrider Foundation. Web. 16 Oct. 2012 <http://www.surfrider.org/programs/entry/rise-above-plastics>.

"Taking out the Trash." Home page. Clean Water Action. Web. 16 Oct. 2012 <http://www.cleanwateraction.org/programinitiative/taking-out-trash-california-0>.

"Trash Free Seas." Home page. Ocean Conservancy. Web. 16 Oct. 2012 <http://www.oceanconservancy.org/our-work/marine-debris/>.

Newspaper and Magazine Articles

Editorial. "Plastic Bags Are an Environmental Menace." *L.A. Times*, April 4, 2012. Web. 16 Oct. 2012 <http://www.latimes.com/news/opinion/opinionla/la-ed-plastic-bag-ban-20120404,0,1856900.story>.

Doucette, Kitt. "The Plastic Bag Wars." Rolling Stone, 4 Aug. 2011. Web. 16 Oct. 2012 <http://www.rollingstone.com/politics/news/the-plastic-bag-wars-20110725>.

Ferriss, Susan. "Grocery bag bill drew heavy out-of-state lobbying." *Sacramento Bee*, 9 Nov. 2010. Web. 16 Oct. 2012 <http://www.humboldtbaykeeper.org/the-news/293-grocery-bag-bill-drew-heavy-out-of-state-lobbying.html>.

---. "Plastic-bag backers donate to California lawmakers ahead of bill's vote." *Sacramento Bee*, 26 Aug. 2010. Web. 16 Oct. 2012 <http://www.humboldtbaykeeper.org/the-news/253-plastic-bag-backers-donate-to-california-lawmakers-ahead-of-bills-vote.html>.

Klein, Karin. Editorial, "California plastic bag ban: Will it get there this year?" *L.A. Times*, 31 Aug. 2012. Web. 16 Oct. 2012 <http://www.latimes.com/news/opinion/opinion-la/la-ol-plastic-bag-ban-20120831,0,3840216.story>.

Sahagun, Louis. "Green Vets Los Angeles gives veterans jobs making reusable bags." *L.A. Times*, 28 Aug. 2012. Web. 16 Oct. 2012 <http://www.latimes.com/news/local/la-me-green-vets-20120827,0,4550635.story>.

Miscellaneous

"Ethics Filings: Coalition to Stop the Seattle Bag Tax." Ethics and Election Commission. City of Seattle, n.d. Web. 16 Oct. 2012 <http://www2.seattle.gov/ethics/eldata/filings/popfiling.asp?prguid={C877AEFE-CE2E-4345-9CF5-843FA5493793}>.

Public Meeting Sign In Sheet

October 2, 2012 Ronald F. Deaton Auditorium, 100 W. 1st Street, Los Angeles, CA 90015

Notice of Preparation of Environmental Impact Report for the Proposed Single-Use Plastic carryout Bag Ordinance in the City of Los Angeles

Name	Affiliation	Address	Phone Number	E-mail
Kathryn Benz	Heal the Bay	Santa Monica, CA		
Glenn Bailey	Encino Neighborhood Council	PO Box 19172 Encino 91416	818-453-3407	GlennBaileySFV@yahoo.com
Andy Shrader	CD5	City Hall		
Esther Kim.		520 N. Virgil Ave. 90004		tgkim@berkeley.edu.

Public Meeting Sign In Sheet

October 3, 2012 Wilmington Recreation Center (Multi-Purpose Room) 325 Neptune Avenue, Wilmington, CA 90744

Notice of Preparation of Environmental Impact Report for the Proposed Single-Use Plastic carryout Bag Ordinance in the City of Los Angeles

Name	Affiliation	Address	Phone Number	E-mail
CRAIG CADWALLADER	SURFRIDER FOUNDATION SOUTH BAY CHAPTER	PO BOX 3825 90266 MANHATTAN BEACH CA	310-545-3094	RAP@SURFRIDER-SOUTHBAY.ORG

Public Meeting Sign In Sheet

October 4, 2012 Cheviot Hills Recreation Center (Auditorium) 2551 Motor Avenue, Los Angeles, CA 90064

Notice of Preparation of Environmental Impact Report for the Proposed Single-Use Plastic carryout Bag Ordinance in the City of Los Angeles

Name	Affiliation	Address	Phone Number	E-mail
Hillary Gordon	Sierra Club Zero Waste Cte.	1823 Camden Ave. #2 Los Angeles, CA 90025		hillgordon@verizon.net
LESLIE TAMMINEN	SEVENTH GENERATION ADVISORS	2601 OCEAN PARK BLVD. #311 SANTA MONICA CA 90405		Leslie.Tammineen@gmail.com
JACY BOLDEN	RESIDENT	5960 ABERNATHY DR L.A. 90045		JacyBolden@sbcglobal.net,
CRAIG CADWALLADER	SURFRIDER FOUNDATION SOUTH BAY CHAPTER	PO Box 3190 90266 MANHATTAN BEACH, CA	310-545-3094	RAP@SURFRIDER-SOUTHBAY.ORG

Public Meeting Sign In Sheet

October 10, 2012 Van Nuys City Hall 14410 Sylvan Street, Van Nuys, CA 91401

Notice of Preparation of Environmental Impact Report for the Proposed Single-Use Plastic carryout Bag Ordinance in the City of Los Angeles

Name	Affiliation	Address	Phone Number	E-mail
Jenny Rayas	CD4	14410 Sylvan St, RM 215 VN, CA 91401	(818) 778-4999	Jenny.rayas@lacity.org
Lynda Leviton	CD6	" " " " " " " "	" " "	lynda.levitan@lacity.org
Glen Wilson	Northridge West NC	18925 Citronia St, Northridge, CA 91324	(818) 886-3534	glenw@adelphia.net
Kamryn Williams	CSUN	kambamm33@aol.com	(661) 575-7641	Kambamm33@aol.com
Glenn Bailey	Encino NC & Northridge East NC	PO Box 19172 Encino 91416	818-453-3407	GlennBaileySFV@yahoo.com
Sarah Sheehy	CCA	1020 N. Lake St Burbank	818-841-8640	SSheehy@cagrocers.com
Andy Shrader	councilmember Koretz CD-5	200 N. Spring St, Rm 440 LA 90012	(213) 473-7005	andy.shrader@lacity.org
Steve Fuad	BAN THE CARDBOARD	7107 DEERING AVE, CANOGA PARK, CA	(818) 398-2092	steve@banthecard.com

Down Town
10/2/12

Public Meeting Comment Card

October 2, 2012 Ronald F. Deaton Auditorium, 100 W. 1st Street, Los Angeles, CA 90015

Notice of Preparation of Environmental Impact Report for the Proposed Single-Use Plastic carryout Bag Ordinance in the City of Los Angeles

Name: Glenn Bailey	Address: Po Box 19172 Encino 91416-9172	
Affiliation:	Phone: 818-453-3407	Email: GlennBaileySFV@Yahoo.com

Comments: Reduce the number of plastic bags generated. How many is that in the City annually? What is the cost of cleaning up plastic bags in the environment? Including volunteer hours?
Please indicate the expected reduction of litter caused by plastic bags.

If you need more space, please use backside of the card

Down Town
10/2/12

Public Meeting Comment Card

October 2, 2012 Ronald F. Deaton Auditorium, 100 W. 1st Street, Los Angeles, CA 90015

Notice of Preparation of Environmental Impact Report for the Proposed Single-Use Plastic carryout Bag Ordinance in the City of Los Angeles

Name: Kathryn Benz	Address: 1444 9th St. Santa Monica, CA	
Affiliation: Heal the Bay	Phone: (310) 451-1500	Email: KBenz@healthebay.org

Comments: Request to make a statement

If you need more space, please use backside of the card

Chevrt Hills.
10/4/12

Public Meeting Comment Card

Notice of Preparation of Environmental Impact Report for the Proposed Single-Use Plastic carryout Bag Ordinance in the City of Los Angeles

Name: LESLIE TAMMINEN	Address: 2601 OCEAN PARK BLD	
Affiliation: SEVENTH GEN ADVISORS	Phone: 310 780 3344	Email: leslie.tammineno gmail.com

Comments:

(ORAL)

If you need more space, please use backside of the card

Van Nuys
10/10/12

Public Meeting Comment Card

Notice of Preparation of Environmental Impact Report for the Proposed Single-Use Plastic carryout Bag Ordinance in the City of Los Angeles

Name: Glen Wilson	Address: 18425 Citrona St Northridge, CA 91324
Affiliation: Northridge West NC	Phone: (818) 863-3534 Email: glenwpds@extreme.com

Comments:

Need more Outreach about ~~this~~ meetings.
Only got email from SRCRD@lacity.com
by email Sept 19, 2012.
Only One meeting in SF Valley.

If you need more space, please use backside of the card